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ABSTRACT

This study describes the nine regional educational laboratories supported by the Office of Educational Research and Improvement (OERI). The labs are operating under 5-year contracts for 1986-1990. The study analyzed lab-produced documents, describing lab operation for the first 2 years of this period, highlighting the status of the program at the end of the second contract year. The documents were largely management documents (plans, annual reports, self-assessment reports, etc.) rather than program documents. Following an introduction on the background and mission of the labs, chapter two covers the governance and organization of the labs and the approaches used to establish each lab and to negotiate its niche in the region's organizational infrastructure. Chapter three covers the extensive planning system of needs sensing, capability, assessment, self-assessment, and priority setting. The fourth chapter deals with the work of the labs with state-level decision makers. Chapter five discusses providing research and development-based services with and through existing organizations. The final chapter offers a summary and conclusions. Appendixes present excerpts from a request for proposal and examples of task structures, taken from proposals, of laboratory programs focused on improving administrative leadership. (JD)

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REGIONAL EDUCATIONAL LABORATORY APPROACHES TO EDUCATIONAL IMPROVEMENT: A DESCRIPTIVE SYNTHESIS

by

WARD S. MASON Ph.D

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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101 Workington
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CHAPTER I

INTRODUCTION

Background

In 1984-85, the U. S. Department of Education funded nine regional educational laboratories to provide R&D services to every area of the United States, including Puerto Rico, the U. S. Virgin Islands, and U. S. Pacific Territories. This decision represented a new beginning for a program that had been through 19 turbulent and controversial years. During that period the program had seen major shifts in purposes, government support, and relationship of the laboratories to other educational organizations. Of 20 laboratories funded in 1965-66, only seven remained. Frequent changes in regional boundaries had been made, but large areas of the country had no laboratory to serve them.

In 1983 the National Institute of Education (NIE), then the Federal unit responsible for the program , decided to continue but redesign the program and recompete the contracts. To address the problems previously identified (Chase, 1968; Campbell, et al, 1975; Panel, 1979); and put the program on a firmer footing, NIE undertook a massive participatory planning effort. Redrawn boundaries identified 10 regions. (Two regions, the Northwest and the Pacific Territories, were combined for the first five-year period.) To ensure meaningful competition in each region, up to three groups in each region were awarded planning grants prior to the laboratory competition.

The request for proposal (RFP) that emerged from the planning process represented a carefully thought-out Federal strategy for supporting educational improvement. Nine labs funded as a result of that competition have now been in operation for two years. The present report represents one component of a broader program evaluation plan intended to help policymakers and program stake-holders understand how the new program is faring (OERI 1987). This study provides a descriptive synthesis of documents and reports produced by the laboratories themselves. It will be complemented by field studies and policy analyses to be undertaken during 1987-89. These program evaluation activities have been supplemented by self-assessment efforts required of the labs and a performance evaluation by external peer review teams at the end of the first two years.

Purposes, Methods, and Limitations.

This study looks across the nine laboratories and attempts to get a clearer picture of how laboratories view their mission and strategy, activities undertaken, and relationships established. What are their similarities and differences? The intent is descriptive rather than evaluative, even though this project is part of an evaluation plan. Perhaps it will also make a modest contribution to the emergent research field of knowledge applications, for which a journal, Knowledge in Society, has just been established (Dunn and Holzner 1988).

The RFP for the lab competition laid out a broad framework for lab operations but did not attempt a detailed specification of activities. Indeed, it required that each lab program should result from a careful process of interaction with a wide variety of organizations and stakeholders in the region to establish needs, resources, and opportunities peculiar to each region.

This study has two major foci of interest: (1) results of the process whereby the labs negotiated their role in the region, identified regional needs, and established their program; and (2) strategies chosen to implement that role.

The database for the analysis is limited to documents prepared by the labs themselves, notably planning, needs sensing, self-assessment, and annual reports. This places some limitations on the interpretation. There is, of course, a human tendency to "place one's best foot forward" when a contractor prepares reports for its funding agency, especially considering the history of conflict between the continuing labs and prior funding agencies (NIE and the Office of Education). Furthermore, there is "many a slip twixt" plan and implementation.

However, there is also an upside to this situation. According to alternative views of the planning process, planning is a "sense-making" activity that more often provides an understanding of what has been already done than what is to come (Clark 1980). Perhaps the same can be said of progress reports. They may be rationalizations in the bad sense, but they also may be in the good sense-making meaning. Further, because we are dealing with professionals for whom the norms of science have some meaning, an overly cynical view does not seem warranted. If we understand what kinds of documents we are dealing with, these documents should contain useful information.

More specifically, core documents analyzed for each lab were:

- Five-year plan for 1986-90*
- Governance and organizational status report
- Plan for FY 1988-90
- Annual reports for 1986 and 1987
- Needs sensing report for 1986
- Self-assessment reports for 1986 and 1987

The time reference of the present report will vary somewhat from section to section. Clearly the above reports have varying time references. The major focus will be on the status of the program at the end of the second contract year, i.e. November 30, 1987. What is the status of the program at that point in time? However, these are dynamic organizations, and we also are interested in how they got where they are. Some reference to changes made prior to this point in time will be introduced where appropriate information is available. Although the plans for years three through five were originally excluded from the scope of this study, they represent the culmination of the complex needs sensing, self-assessment, and planning process of years one and two and were found to be a rich source of information on lab status and thinking as the end of their first two years approached.

Studying nine labs is a form of multisite qualitative policy research (Herriott and Firestone, 1983). Our principal method is to develop typologies both inductively and deductively to explore the similarities and differences among these nine cases. The principal points of reference are the framework provided by the lab RFP and the research questions posed in the RFP for this project. We are particularly interested in discovering patterns that suggest a fit between certain strategies and tactics on the one hand and regional needs and opportunities on the other.

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*All years in this report refer to contract years.

A leitmotif in the analysis will be a concern with how the labs cope with divergent problems. In contrast to convergent problems, such as arithmetic problems, divergent problems have no specific solution; one can only develop a modus operandi for coping (Schumacher, 1973). Some of the principal divergent problems faced by the labs include:

- Accountability vs. flexibility
- Independence vs. dependence
- Prime mover vs. catalyst
- Need to show impact at the school level and restriction to indirect strategy.
- Proactive vs. reactive posture

In may respects this an insider's report. It was commissioned by OERI as part of a more comprehensive evaluation plan (OERI 1987). Its primary audiences are OERI personnel, the Laboratory Review Panel, lab personnel, and those more generally interested in institutional arrangements for educational improvement. Acronyms have been used liberally to avoid cumbersome language and should be familiar to most members of these audiences. For those who may need to refresh their memories, a glossary of acronyms and abbreviations has been provided as Appendix C.

The Laboratory Mission

Laboratories can be viewed as an instrument in a Federal macro-strategy for knowledge-based educational improvement. At the time they were conceived in the 1960's the Federal Government had been supporting a small program of research grants, primarily to universities, for about ten years. The university-based R&D Centers and the Educational Resource Information Center (ERIC) had been started just the year before and were the only other Federal initiatives designed to use new organizational entities for bridging the gap between research and practice. Since that time, the number of Federal programs that support "assistance institutions" has grown (Laboratory Review Panel 1987). In addition, state-supported entities like intermediate service agencies have waxed and waned. In designing the new laboratory competition, it was necessary to take these changes in the infrastructure into account.

The Federal perspective on the mission of the laboratories is discussed in some detail in the RFP and summarized in six "statements" and the five-task structure (Appendix A). Analysis suggests that these can be grouped and summarized as three major strategies and two sub-strategies:

THE LINKAGE STRATEGY

A. Regional sub-strategy
- Laboratories serve designated regions (Statement 4)
- Laboratories have independent governing boards (Statement 5) and develop effective governance, management, planning, and evaluation systems (Task 1).
- Laboratories work with and through existing organizations to improve schools and classrooms (Task 2).

- o Laboratories work with state-level decisionmakers on school improvement issues (Task 3).

B. National sub-strategy

- o Laboratories are part of a nationwide system (Statement 6).
- o Laboratories work in collaboration with centers and with other laboratories on regional and national educational problems (Task 5).

THE IMPROVEMENT STRATEGY

- o Laboratories focus on school and classroom improvement (Statement 1).
- o Laboratories work to create research and development-based resources for school improvement (Task 4); laboratories engage in applied research and development that support improvement (Statement 3).
- o Laboratories feature dissemination and assistance strategies (Statement 2).

THE SUBSTANTIVE NEED OR ISSUE STRATEGY (EDUCATIONAL FOCUS)

- o Laboratories assess regional needs, capabilities and opportunities and establish priorities for laboratory activity (Subtask 1.2).

Each of these tasks and statements is discussed in some detail in the RFP and in staff papers that were prepared before drafting the RFP.

The nine laboratory plans represent nine implementations of this set of macro-strategies. This study can be viewed largely as a description of similarities and differences in ways the nine labs have implemented the Federal concept in nine regional contexts.

The laboratory concept can be summarized graphically as a three-sided cube (see Figure 1). Each of these strategies can, in turn, be broken into a number of levels or tactics. Every lab program has these three facets; variation occurs in the approaches used to implement each. A number of typologies and classifications (summarized in Chapter VI) are introduced in order to gain an understanding of the similarities and differences among labs in

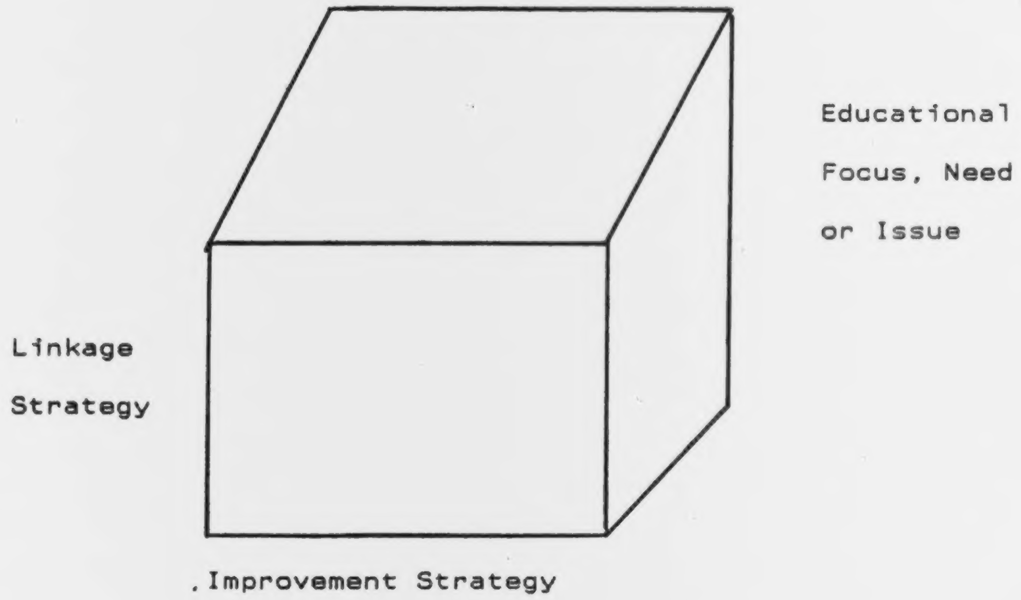

Figure 1. Three Dimensions of the Laboratory Mission

their approaches to these three strategies. This basic schema will be used throughout the report to describe lab activities.

Organization of the Report

The report is organized more or less in terms of the task structure set forth in the RFP. A chapter on governance and organization of laboratories deals with approaches used to establish each lab and to negotiate its niche in the region's organizational infrastructure. A chapter on planning covers the extensive system of needs sensing, capability assessment, self-assessment, and priority setting required under Task 1 and represents the labs' approach to selecting and designing program activities. We then examine the actual projects and programs undertaken for Task 3, examining in more detail the needs addressed, the organizational linkages established, and improvement strategies used. Tasks 2 and 4 are then examined together because the programs designed under both tasks were found to have both linkage and improvement dimensions. Task 5, which was largely in a planning mode during the period under review, will be dealt with only where Task 5 themes intersect with work under Tasks 2-4. Finally, some conclusions regarding the status of the program at the end of two years and some personal observations will complete the report.

CHAPTER II

GOVERNANCE AND ORGANIZATION OF LABORATORIES

Organizational Context

Description of the Educational Infrastructure

In considering the role of labs it is necessary to ask where they fit in the overall structure of education. Herriott (1980) has provided a useful distinction among three kinds of organizations:

- **Service Delivery Organizations** (SDOs) concerned primarily with the direct instruction of pupils or with effective management of that instruction.
- **Knowledge Producing Organizations** (KPOs) concerned primarily with the conduct of basic or applied research on topics of potential relevance to the subfield of service delivery
- **Service Improvement Organizations** (SIOs) concerned primarily with linking the other two subfields.

The service delivery field is a complex hierarchical system operating at five levels: classroom, school, local education agency (LEA), intermediate service agency (ISA) - in some instances - and state education agency (SEA). The 107,200 public and private elementary and secondary schools in 1980 give some sense of the large numbers involved (NCES, 1982).

Several attempts have been made to describe the organizational arrangements for knowledge-based educational improvement (Office of Education 1969; NIE 1976; Frankel, Sharp, and Biderman 1979). The 1979 study, which covers both KPOs and SIOs, identified the following numbers of organizations with some kind of RDD&E capability:

37	State Education Agencies
193	Intermediate Service Agencies
401	Local Education Agencies
423	Colleges and Universities
476	Miscellaneous Organizations

Allowing for multiple R&D units within organizations (e.g., multiple centers within a university), 2,420 R&D entities existed within these 1,530 organizations.

The dominant image is one of large size and extreme complexity. Most of the 2,434 performers did not specialize in this field. There was a high degree of concentration, with the 172 largest performers (7 percent) accounting for 68 percent of all expenditures. Furthermore, 47 percent of the organizations were found in seven states. These national data are somewhat out of date and do not reflect the considerable attrition that has taken place during the '80. Individual laboratories are charged with maintaining current data of this type for their regions (to be discussed below), but no attempt has been made to standardize data collection or compile national aggregates.

Knowledge production takes place in many varied organizational settings. In universities it occurs at three levels: the individual project, small institutes of several projects and professors, and major research centers, such as those funded by OERI, with multiple programs. Other settings include profit and not-for-profit independent firms and research and evaluation units of LEAs and SEAs.

Organizations attempting to assist SDOs with knowledge-based improvement strategies include many of the same organizations as well as school development councils, the National Diffusion Network (NDN) and ISAs, teacher centers, and, more recently, a proliferation of ad hoc Federally sponsored units such as desegregation technical assistance centers.

System or Configuration?

Taken together, these organizational sectors are often referred to as the "educational R&D System" or" knowledge production and utilization (KPU) system". The legislation that created NIE declared as the policy of the United States to "build an effective educational research and development system" (Public Law 92-318, section 405, June 23, 1972). Yet, according to some observers, this set of organizations, SDOs, KPOs, and SIOs, does not meet even the minimum requirements of a system (Sieber 1975; Spivak and Radnor 1979). For example, there is little functional specialization among performers and little balance among functions, performers, settings, and supply and demand.

Coming to the same conclusion, Clark and his colleagues decided that continued dependence on the terminology of systems was dysfunctional and new frameworks and metaphors were necessary to understand knowledge-based school improvement (Guba and Clark 1974; Clark and Carroll 1980a and 1980b; Clark 1980; Clark 1984). They note that KPU is:

> ...highly decentralized, consisting of a number of more or less independent and co-equal members, who may from time to time find it helpful to form temporary alliances but who, in the main, retain their independence, shun authority and activity relationships, and engage in as many different kinds of KPU activities as seem to be needed and feasible for them to maintain their self-sufficiency. (Guba and Clark 1974, 45)

This view of reality is termed the "configurational perspective" and is analogous to the concept of a community (Guba and Clark, 1974). Such order and regularity as are found are the result of negotiation and persuasion.

While this description may be somewhat overstated, it appears closer to reality than the systems view. Except for the planning and evaluation functions, it also appears to be the perspective of those who planned the laboratory recompetition.

The Regional Focus of Laboratories

Overview of Regionalism in Education

When the laboratories were first conceived, two conflicting schools of thought emerged on how they should be organized and governed. One was that there should be a small number of elite institutions in intellectual centers, the other there should be a relatively large number of such institutions, organized regionally, and blanketing the country. For reasons that have never been entirely clear (but probably are related to the inherent political appeal of a program serving every congressional district), the regional approach was adopted, and the laboratories have been regional ever since.

Regional organizations, however, have no direct constitutional basis. Regional educational laboratories may have a contractual relationship to the Federal government, but they stand completely outside of the state/local structure of education. In this sense, labs are marginal entities.

In a review of regionalism in education, Hofler (1979) concludes that there are several bases for regionalism :

- o Regions can be viewed as aggregate composites of "local elements." This implies that the regional entity will be largely controlled by the perspectives, interests, values, goals, etc. of the constituent elements.
- o Heterogeneity may be as important as homogeneity, for it provides the possibility of complementarity among diverse resources.
- o Regions may be based on cultures of collaboration: attitudes and values that imply an openness to the possibility of working together.

The form, focus, or scope of regionalism also tends to be highly time-dependent, being either short- or long-term, and varying over time.

Hofler concluded that, as "in-between organizations," regional organizations have a particular opportunity to provide both local-national mediation and opportunities for cross-state/local linkages. Further, they are less vulnerable to pendulum swings between centralization and decentralization.

Hofler presents four arguments in favor of and four against organizing on a regional basis.

The case FOR regional organization:

- o Regional approaches can serve a variety of (although not all) educational KPU purposes.
- o Regionalism is inherently suited for local/national mediation and for cross-state/local linkages.
- o Regionalism seems to be a political requirement for continued congressional support.

- "There is reasonably strong evidence to suggest that contextual forces do at times converge to provide a basis for successful uses of regionalism" (p. 14).

The case AGAINST regional organization:

- Regionalism seems to have no preemptive strengths. Valid national and/or local alternatives are generally also available.
- Successful regionalism is highly context-specific and tends not to be generalizable in a planned, orderly manner".
- While regionalism is relevant to coordination, it is not a panacea for coordination problems. Other non-regional alternatives are available for coordination, and regionalism in fact adds to the amount of coordination required.
- Both governmental and educational contexts present formidable constraints against regionalism.

Observations of the regional educational laboratories suggest several pragmatic considerations. The prime responsibility for education rests with over 50 state-level education agencies and 15,600 local districts. For the most part education agencies tend to be inwardly focused. When they look outward toward the nation as a whole, they are swamped by the numbers involved. Working together within regions makes the numbers manageable and still makes it possible for each agency to compare itself with others having similar problems. In addition, travel and other efficiencies are involved.

At another turning point in lab history, the NWREL re-examined the concept of regionalism and concluded that its own regional definition was justified with reference to:

- Geography (including topography, population patterns, climate, trade and commerce, and communication patterns);
- "Kindred spirits" (feelings of natural kinship and professional ties);
- Existing regional alliances; and
- Existing R&D performers (McClure 1977).

Federal Specifications for Organization and Governance

It is with the role of the labs in the regional organizational matrix that the RFP goes into greatest detail, spelling out the requirements in three tasks and two statements on the mission, functions, and governance structure as follows (NIE, 1984):

- Task 1: Develop effective governance, management, planning, and evaluation systems
- Task 2: Work with and through existing organizations to improve schools and classrooms
- Task 3: Work with state-level decisionmakers on school improvement issues
- Statement 4: Laboratories serve designated regions.
- Statement 5. Laboratories have independent governing boards.

A central notion was that labs must be both independent of and neutral toward other regional organizations. There was recognition that education has diverse stakeholders and that the labs would have to be able to work with all of them without taking sides in any conflicts that might exist between other groups.

In most major respects these specifications reflect the configurational perspective. There was no vision of the labs playing specialized functional roles in a linear flow of knowledge from producer to user. Rather, the labs were expected to work "with and through" other school improvement organizations, forming temporary systems to work on regionally identified educational problems, and providing a variety of gap-filling R&D services.

Laboratory Regions

In the original program there were 19 laboratories served the contiguous forty-eight states, and one, the Center for Urban Education, focused on educational problems in major cities. Regions tended to be defined in ways that split many states between two or more laboratories, and, on average, there were only about two and one-half states per laboratory. states and SEAs were not viewed as key clients; preference was given to working directly with schools and school districts.

Under the new program, only nine laboratories serve 50 states, Puerto Rico, the Virgin Islands, and the Pacific Island Territories. Regions are defined as groupings of whole states, and vary in size from four to nine jurisdictions. States and SEAs are viewed as key clients, along with other improvement support agencies, while working directly with schools and school districts is expected to be the exception rather than the rule.

An overview of the characteristics of the nine regions is found in Table 1. These are not necessarily the most important or relevant regional indicators, but are among those examined by program designers (adapted from data supplied by David Mack).

It is apparent that there is considerable difference among the laboratory regions on these characteristics. For example, enrollment varies from 2,055,000 in the NWREL region to 20,035,00 in the NCREL region. Population per square mile varies from 10 to 383. It is noteworthy that NWREL stands either first or last on almost every characteristic. It has the largest area and smallest population and consequently the lowest density. Its poverty level is near the bottom of the range. On the other hand, RBS has the smallest area and highest population density, but is closer to the averages in other characteristics. The need for the "with and through" strategy is evident from the number of schools in each region, ranging from 5,049 to 20,035. For any laboratory to provide direct services to even the smallest number would be difficult to comprehend.

Table 1. Characteristics of Nine Laboratory Regions.

Lab/ Region	No. States	General Pop (000's)	Pub/Pvt Enroll (000's)	Land Area (sq miles)	Pop Per Sq Mile	No. Public Schools	No. Ed R&D Orgs	Poverty 5-17 Y (000's)
AEL	4	15,548	3,150	144,828	107.4	6,087	125	607
FWL	4	28,647	5,698	461,763	62.0	8,877	303	778
McREL	7	13,553	2,694	573,462	23.6	8,572	176	343
NCREL	7	48,660	10,233	379,331	128.3	20,035	552	1,272
NE/I*	9	29,906	6,818	110,782	270.0	9,441	408	948
NWREL**	7	9,859	2,055	967,043	10.2	5,049	114	226
RBS	5	24,680	4,899	64,421	383.1	7,828	291	678
SEDL	5	25,043	5,347	549,203	45.6	10,746	180	1,072
SEIL	6	30,609	6,094	289,190	105.8	9,624	271	1,275
TOT/AVG	54	226,505	46,988	3,540,023	64.0	86,259	2,420	7,199

*Includes Puerto Rico and the Virgin Islands.
**Includes Hawaii, Marianas, Caroline and Marshall Islands, and American Samoa.
Source: OERI

Of course these inter-region variabilities mask considerable intra-region heterogeneity. A range more extreme than that from New York City to the Virgin Islands (NE/I), or from Los Angeles to a remote county in Nevada (FWL), is hard to imagine. So it is not homogeneity but logistics that justifies a regional approach to knowledge-based school improvement. Major metropolitan areas of all regions have more in common with each other than with rural areas of their own region, and vice versa. It is for this reason that both rural and urban themes assume importance for cross-laboratory coordination under Task 5.

Special Considerations

In comparing the nine laboratories, several special considerations should be kept in mind.

New vs. Old Labs. Six of the nine laboratories had been in existence for 19 years when the current contracts began. Although they had to make adjustments by adding or subtracting states in their region or changing governance structure and revising programs, they were able to "hit the ground running." SEIL was a wholly new organization, although it was able to build on the experience of the pre-existing Southeastern Council for Educational Improvement.

NE/I had to be organized as a new governing entity. While operations were sub-contracted to an experienced school improvement organization, The Network, its decentralized structure had to be created and a new program put in place. In addition, its contract year operates three months ahead of other labs. Including Puerto Rico and the Virgin Islands in the region added considerably to the heterogeneity of the region.

NWREL was an experienced lab, but the decision to combine the Northwest and Pacific regions made the task more complex.

Finally, NCREL was a totally new organization, but had been funded one year earlier than the others and so was actually in its second and third years of operation in the two years being examined in this study. In addition, NCREL was originally funded through a grant rather than a contract and was not subject to the same reporting requirements.

In sum, we would expect that NE/I and SEIL would be just emerging from their developmental stage at the end of FY 1987, while NCREL would be further advanced into program operations.

Changes in Region. Among the experienced labs there were numerous changes, adding or subtracting states. We have taken the view that all labs are continually having to negotiate their role in relation to other regional organizations. This is magnified when one or more additional states are brought into their orbit. So we might expect that within lab regions there would be variation among the several states in the speed with which a lab could become fully operational.

Governing Boards

In designing the new laboratory program the government was not content to fund laboratory-like activities in a variety of organizational contexts; it required the establishment of unique regional organizations. They had to be independent and not simply a subsidiary of some larger organization, such as a university, and still have strong ties to other regional educational improvement organizations.

The board of directors was viewed not just as the legal mechanism to control the organization but also to provide links between the lab and its major constituencies. This has both structural and functional aspects. (The analysis in this section is based largely on the Governance and Organizational Status reports of 1986 and related sections of the proposals for 1986-90 and 1988-90.)

Structure

There is a major continuing problem with the regional basis of laboratories. In our system of government, regional institutions have an inherently ad hoc character. No "laying on of hands" by OERI can give labs their legitimacy, although support and funding by the Federal government are important. Legitimacy for their mission must be bestowed by other regional institutions. For this reason the governance structure of each institution is crucial. The key role of chief state school officers (CSSOs) in legitimating labs was recognized by requiring that all chiefs be offered the opportunity to sit or be represented on the board of directors. It was further required that the board reflect "a balanced representation of the states in the region, as well as the interests and concerns of regional constituencies" (RFP Post-Award Requirements).

All the chiefs have accepted invitations to sit on the boards or send their representatives. McREL has the added stipulation that only the chiefs can vote; their representatives can participate in discussions but not vote. In most cases the chief is listed as the board member, but in at least one case (SEDL) the designees are listed as formal members. These persons usually serve also as the primary SEA liaison.

All labs met the requirement of having equal representation from the states in their region (except that FWL treats California as two Sates, Northern and Southern California).

Two of the labs also serve island territories of the United States. NE/I serves Puerto Rico and the American Virgin Islands. Their chief education officers are "permanent" members of the board, and lab bylaws require that the islands, like the states, must have at least two members on the 41-person board.

NIE originally identified a tenth region consisting of Hawaii, American Samoa, Guam, Northern Marianas Islands, and the Trust Territory of the Pacific Islands. However, for the first contract period, this region was combined with the Northwest. The NWREL Board serves as the board of both regions, but the needs of the Pacific Region are accommodated by the establishment of the Pacific Region Policy Board, composed of CSSOs and other educational leaders. In addition, an Indian Policy Board represents the interests of Indian populations in the region. The relationship of these boards to the NWREL Board is not explained, and their activities are not described beyond such generalities as that they meet quarterly and "review progress, provide planning input, and establish priority activities" (Plans for Years 3-5, p. 6).

Apart from the CSSOs, the boards must have about equal representation of educators and public participants. There is considerable variation in how they are selected. In most cases both educator and non-educator slots are filled through a process and nomination and election by the board itself. However, some labs have a process whereby state advisory committees nominate (SEIL), and in some cases elect (NCREL), board members. On the public side, SEIL allots three positions on a rotating basis to the chief executive officers of the state systems of higher education.

AEL is unusual in allotting positions to the "designated representatives of state education associations (NEA affiliates), school administrator associations (AASA affiliates), and state associations of colleges for teacher education (AACTE affiliates)". [AEL Technical Proposal 1985, iv].

SEIL allots three positions on a rotating basis to the chief executive officers of state systems of higher education.

FWL was established by eight public education agencies who signed a "Joint Powers Agreement" (amended in 1986 to add a ninth, the Arizona state Board of Education). Twenty-two members of the board are appointed by the nine signatory agencies, while seven are appointed by the Board itself. In addition, there are three ex officio members: the Director of FWL, the Director of Regional Programs, and the Director of the Southern Service Center.

Public members of lab boards are drawn from "local school board members, parents, representatives of business and industry, state legislators, state board of education members, and the community at large" (NIE 1985, 15). Thus, the "public" portion of the membership tends to include many individuals with formal ties to education. For example, SEIL provides that the 12 public members will be drawn from the following "Client Service Groups" on a systematic rotation (SEIL Bylaws, Article III, Section 3).

- Business/industry representative
- Intermediate service organization representative
- Local school board member
- Local superintendent
- Parent
- Private school official
- Principal
- State board of education member
- State legislator
- Teacher

It was not possible to make a cross-lab tabulation of board membership because labs use different categories in reporting and because individual members often can be classified in more than one category. Boards of directors tend to be large, ranging in size from 20 to 41. The logistics of preparing briefing materials and bringing members together up to four times a year can be formidable. (One lab, SEIL, reduces some of these costs by having only annual meetings of its 24-person board and making the six-person executive committee the primary governing body.)

Laboratories are required to have independent governing boards. The meaning of this requirement seems to vary among the labs. In some cases (NCREL, SEIL), the lab and the funded organization are coterminous. However, laboratories are allowed to seek funding from other sources so long as additional work is consistent with the lab mission. Some labs, like FWL, NWREL, and RBS, are considerably larger than the lab contract, and the OERI funded work is a sub-set of the organization's work. Thus, technically, the lab in the Western Region is the Western Regional Laboratory (WREL), also identified as Regional Programs. Immediate oversight for OERI supported work is provided by the Regional Programs Policy Steering Committee of the Board. Similarly, RBS operates the Mid Atlantic Laboratory as a subunit. In the Northeast the winning bidder was a new consortium (as with NCREL), but the lab was to be operated by one of the members, The Network, an existing service improvement organization that had other sources of support. In this case The Network was not allowed to run the lab as a sub-unit; rather, a new Board of Overseers was formed for the lab, which then contracted with The Network to perform lab functions. Note that OERI practice is being followed in referring to the labs. The principle seems to be to use the name associated with the cognizant board of directors. Thus, for example, the Far West Board is recognized as the laboratory board, but The Network board is not; there is a separate "Board of Overseers" for NE/I. The corallary is that it is all right for the work done under the OERI contract to be part of a larger organization if that larger organization identifies itself as the regional educational laboratory and all work done by the larger organization is reasonably consistent with the lab mission.

Functions

Laboratory boards have the usual functional responsibilities of corporate boards, including establishing policy and monitoring the performance of management. All operate under bylaws and have established impressive arrays of policy manuals that cover topics such as personnel, contract administration, travel, and property administration; but they are of little interest for present purposes.

Two other sets of functions, however, deserve mention. While planning and evaluation are regular functions of corporate boards, they are particularly crucial functions for laboratories, and boards are expected to play multiple roles at different stages of the complex planning process. This will be discussed in more detail in the section on planning.

In addition, lab board members are expected to play a role in taking lab messages back to their constituencies and giving the lab visibility. As an example, here is how NE/I phrases these responsibilities (Governance and Organizational Status Report, Vol. 1, no page number):

> CONSTITUENCY BUILDING AND COMMUNICATION
>
> o Approve eligible schools, school districts, agencies, and organizations for affiliation with the Laboratory*
>
> o Build and strengthen relationships with Laboratory constituents, clients, and the general public
>
> o Serve as a channel of communication from the field to the Laboratory
>
> o Create Laboratory visibility

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*This provision was later deleted. The lab still has affiliates, but there is no formal approval process (letter from Glen Harvey, 12/6/88).

While not all labs are this explicit about these functions, it seems pretty clear that these expectations generally obtain for members of all lab boards. Here again, we see that the laboratory board is expected to assist the laboratory in negotiating a niche in the regional educational infrastructure.

Organization and Staffing

The problem of how to organize a regional educational laboratory is complex. It includes several issues: program structure, organizational structure, the part/whole problem, organizational models, partnerships and networks, and methods of augmenting staff.

Program Structure

The structure of programs, projects, and activities derives from three major factors: (a) the task structure mandated by the government, (b) the priority areas chosen as a result of the needs and capabilities assessment process, and (c) educational improvement and linkage strategies appropriate to the problems and contexts.

The task structure required for government accountability obviously has to be accommodated, but it presents its own problems. Only AEL and RBS use a simple classification of programs by task; All others use some form of a matrix design for at least some tasks and program structures.

Task 1, relating to governance, organization, planning, and evaluation, is relatively straightforward. Virtually all labs assign responsibility to the Office of the Director. If they have a special staff unit for planning and evaluation, that unit has a major responsibility for parts of the task dealing with needs sensing, capability assessment, self-assessment, and planning. In a few cases specific assignments are made to line units.

Similarly, Task 3, work with state-level decisionmakers on school improvement issues, tends to be a self-contained program or project, although NE/I parcels out six Task 3 activities among four programs and SEDL distributes 10 activities among four programmatic themes.

Initially, Task 5, collaborative activities, was a placeholder in that the specific projects had to be planned after the award. For most themes it took two years to develop plans. Plans for years three through five describe 11 collaborative projects, but not all labs participate in all projects. Where there is a correspondence or fit between the collaborative theme and another program or project, such as evaluation or state policy collaboration, most labs assign the theme to that program.

The major problem comes in dealing with Tasks 2 and 4, which represent the core of the program and were expected to absorb between 60 and 80 percent of program effort. Task 2, "with and through," is a mode of operation, not a task in the traditional sense, although it tends to be interpreted as the dissemination/utilization function. On the other hand, Task 4, "work to create research and development based resources for school improvement" (emphasis added), is ambiguous and turns out to be an umbrella that covers everything from applied research to collection of promising practices. The RFP does allow the conduct of applied research or action research.

McREL initially adopted a very narrow interpretation of this task. No separate projects were identified for Task 4; rather, the materials development activities of projects under Tasks 2 and 3 were classified as Task 4. (In the plan for 1988-90 a new demonstration program in local sites has been formulated - a different interpretation of Task 4, and of the "with and through" mandate.)

Two of the labs (AEL and RBS) appear to have self-contained program units organized by task (although RBS may have a modest amount of matrixing). But most labs use some matrixing across Tasks 2 & 4 in which programs and projects are distributed across these two (and sometimes other) tasks. Generically, such programs look like this:

	Task 2	Task 4
Program A		
Project 1	Activity 1.1 Activity 1.2	Activity 1.3
Project 2	Activity 2.1	Activity 2.2 Activity 2.3
Program B		
Project 3	Activity 3.1	Activity 3.2
Project 4		Activity 4.1

Figure 2: Generic Matrixing of Tasks and Programs.

Organizational Structure

Whether such a program structure represents the way the lab operates or simply an accounting device depends on the organizational structure chosen. If the organizational units coincide with programs and most work on the program and projects is done within that unit, then a program matrix such as that in Figure 1 is just a way of being able to report to OERI in terms of the task structure. If the lab is organized by tasks or functions, program work is likely to be distributed across units. Virtually all labs have some functionally specialized units for information dissemination that provide support to program units.

While seven of the nine labs use some degree of matrix management, SEDL is strongest in its avowal of this approach. Generically, its structure for organizational units, tasks, and themes looks like Figure 2. In this organizational design,

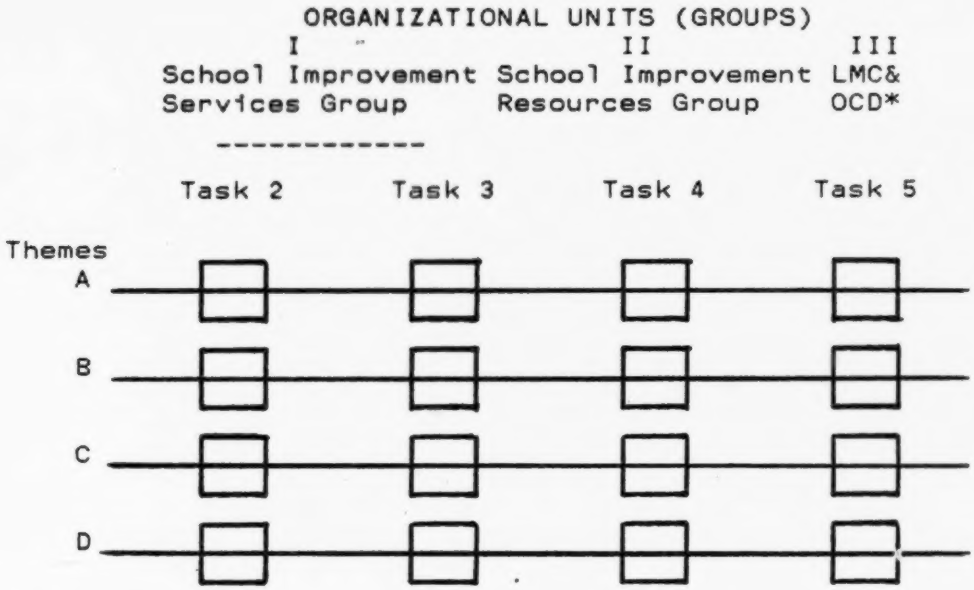
ORGANIZATIONAL UNITS (GROUPS)
I
II
III
School Improvement Services Group
School Improvement Resources Group
LMC& OCD*
Task 2
Task 3
Task 4
Task 5
Themes
A
B
C
D

Figure 3: Matrix Organization of SEDL
(Adapted from Proposal, p. 56).
*Lab Management Council and Office of Communication and Development.

programmatic themes are further divided into subthemes and activities. Tasks 2 and 3 are assigned to the School Improvement Services Group, which implements knowledge utilization efforts, while Task 4 is assigned to the School Improvement Resources Group, the knowledge production unit. Task 5 is assigned to the Laboratory Management Council and the Office of Communications and Development. Thus, the organizational units correspond to the tasks, but programs are matrixed across functionally specialized units. The main axes of coordination seem to be for programmatic themes, in charge of program coordinators.

It may be helpful to provide a short description of each lab, combining aspects of program and organizational structure. The list is roughly in order of complexity, starting with the most simple arrangement.

> **NCREL**. A small laboratory with a small staff. Functionally integrated and thematically designed program units operate projects. Task activities are identified only for OERI accounting.
>
> **AEL**. Intermediate size. Six programs are grouped into three tasks and appear to have self-contained staffs. An attempt to obtain the contributed services of retired professors was abandoned.
>
> **SEIL.** A small laboratory with a small staff. Ten thematically defined projects operate under four programs, but neither programs nor tasks seem to be significant management categories. Projects are staffed by teams of individuals with multiple assignments and roles. There is reliance on positions contributed by SEAs and state systems of higher education. Also several projects are contracted out with the use of RFPs.
>
> **RBS**. A large laboratory with three non-lab programs. Six OERI programs in six functionally defined units correspond to five tasks (two programs in Task 4).
>
> **McREL**. Small organization. Like SEIL, projects are staffed by individuals with multiple assignments and

roles. Lab is nominally organized by task, and there are task coordinators. Work is matrixed across "strategies" or functions. Task 4 is subsumed under Tasks 2, 3, and 5.

NWREL. A large organization with a significant amount of non OERI work. Heads of functionally defined programs supervise projects centers, or services. Six programs (partly functional, partly thematic) are matrixed across organizational units and tasks. Tasks appear to be mainly OERI accounting categories.

NE/I. Intermediate size with decentralized structure. Six thematic programs operated under Field Services for Tasks 2, 3, and 4, with team staffs drawn from both headquarters and assistance center units. Executive Director, Associate Director, and Director of Planning and Communications have pieces of Tasks 1 and 3. (This is descriptive of the lab for the period covered by this report. Subsequently, in January, 1988, the lab dropped the term "assistance center", consolidated program functions in the central office, and focused field staff efforts on field activities.)

SEDL. Intermediate size. Two functionally defined groups, School Improvement Services (Tasks 2 and 3) and School Improvement Resources (Task 4) plus the Office of the Director (Tasks 1 and 5) matrix work across four programmatic themes, subdivided into subthemes and activities. Accountability to OERI is by task, but organizational goals are stated in terms of themes.

FWL/WREL. Large organization in which the Western Regional Educational Laboratory (WREL) is a unit of FWL. The Field Services Director is responsible for Tasks 2 and 4, which are matrixed across three thematic programs plus functionally specific units as necessary. Tasks 1 and 3 parcelled out among staff units associated with the WREL management group. Has task coordinators in addition to line supervisors. Partial decentralization through establishment of the Southern Service Center at CSU Northridge and placement of field agents in state capitals to serve the Task 3 Policy Support Services Program.

Looking across the labs, it is interesting that degree of complexity is not closely associated with size. No doubt some of the complexity could be reduced if OERI defined tasks in a manner more compatible with program organization.

The Part/Whole Problem

Laboratories are allowed to take on work in addition to that funded by the lab contract, and in some cases the total organization is considerably larger than the lab. This raises the question of how the lab is distinguished from the larger organization in the organizational plan.

In some cases the lab is a sub-unit of the organization. Thus, the Western REL is coterminous with the Regional Program of FWL and is headed by its own director, who reports to the Director of FWL. On the other hand, RBS uses a much more informal mechanism: of their nine programs, six make up the lab and the other three are outside of it. All program heads report directly to the RBS Executive Director.

McREL is somewhere in between. The executive director of the lab wears a second hat as principal investigator under the lab contract. He then delegates responsibility for lab tasks 2-5 to the Coordinator of Lab Programs while retaining responsibility for Task 1. (It is not clear how non-lab work is administered.)

The relationship between NE/I and The Network is complex. The lab proposal was submitted by a consortium of regional organizations, for which The Network was the fiscal agent. As a result of negotiations with OERI, NE/I was established as a separate legal entity with its own board, and the conduct of work is subcontracted to The Network. For its part, NE/I operates the laboratory as a separate organizational unit, but there is some sharing of personnel with other units that are funded separately.

Other labs do not say specifically how they handle the problem; presumably non-lab programs and projects are identified as separate work units below the office of the director.

Both here and in the discussion of the independence of governin boards above we observe one of those continuing issues that defies resolution. So long as lab can seek additional sources of funding (which may be necessary for their viability) the work done under the OERI contract is part of some larger whole and cannot be totally independent.

Organizational Models

Several labs based their organizational design on a thoughtful examination of recent organization theory and research, notably McREL, FWL and NE/I.

Citing the theory of William Ouchi, McREL opted for the "M" model rather than the U-Form or H-Form. The "M" model is a variation of matrix management that creates independent units responsible for task specific activities and products but uses common service units. The maintenance of a business office and field staff in Kansas City seems to be for logistic and historical reasons.

FWL had a history of being more like a research center than a regional laboratory. Not only were they more heavily weighted toward knowledge production than knowledge utilization, they also operated with a high degree of principal investigator autonomy and a minimum of programmatic control. In planning for operation under the new laboratory program they recognized the need to rethink these matters. They have strived for an "organic" form of organization highly adaptable yet integrated in its functions and activities. The organizational design incorporates a limited amount of decentralization. A formal relationship was established with the California State University (CSU), in part to create a presence in Southern California where it had not previously operated. The FWL Southern Service Center was established on the campus of CSU Northridge. In addition, Task 3 places field agents in the state capitols of Arizona, Nevada, and Utah.

NE/I was unique in its initial degree of decentralization. In the 1960s, when the infrastructure of educational improvement was far more primitive, a number of labs had tried decentralized structures. These regional offices were soon discontinued because it was too difficult to keep field agents involved in and up to date with lab activity (Salmon-Cox, 1980). NE/I felt that, in a new era when the role of the lab in working with other SIOs was paramount, a new attempt at decentralization was required. Their 10 assistance centers were not freestanding, however; they were housed in school improvement organizations that were part of the consortium sponsoring the lab proposal. Some difficulties were encountered with this approach. It had to be fine-tuned during the first eighteen months, and was abandoned in the second quarter of the third year. More specifically, some field staff were retained for field functions, and the term "assistance center" is no longer used for field units. What was terminated was the attempt to involve field staff in program teams with central office staff.

Partnerships and Networks

Perhaps there was a day when it was clear where one organiztion stopped and the next began, but no longer. In this day of partnerships and networks, ties between organizations seem to have infinite gradations. We have already seen, in the section on governance, how other organizations or organizational sectors are formally represented on the lab boards of directors. In chapters below we will see how adjunct structures such as state advisory committees are created for needs assessment, evaluation, or dissemination, and will examine how the "with and through" task is implemented with partnerships, networks and other arrangements.

One example will be presented here to demonstrate how deeply a lab can be embedded in its organizational context. AEL has very close ties to four other organizational sets: the CSSOs, state teachers associations, state administrators associations, and state teacher education associations. These ties operate on at least four levels. Each organizational set:

- Has a state representative on the board of directors
- Has one or more lab programs dedicated to working on its problems
- Provides advisory oversight for the dedicated program(s) through an advisory committee of the board made up of the set representatives on the board.
- Provides staff for the dedicated program in the form of shared staff, contributed staff, or volunteers.

To sum up, lab organizations are not stamped from the same mold They exhibit considerable variation both in internal structure and ways of relating to other organizations. The common threads are the need for flexibility in staff assignments and the desire to establish structures that assist them in being responsive to environmental press.

Staffing

A number of questions concerning staffing might be of interest. Unfortunately, it is not feasible to address those concerning staff characteristics, such as whether they are drawn from the research or practice communities, from the behavioral science disciplines or education, expertise in R&D functions and/or education problem areas, etc. But organizationally the labs had several choices to make. All have a corps of full-time staff, although in many if not most cases there is some splitting of time between lab and non-lab work. Variation comes in the degree to which that core staff are supplemented by part-time or contributed staff, consultants, or sub-contractors. Here is a run-down of some patterns:

- o AEL: Has a core staff in a central location with no field offices. The program on Professional Preparation and Resources is run by four 20% faculty members in area universities. Self-assessment is conducted partly through a subcontract for a third-party evaluation. An attempt was made to engage retired personnel on a voluntary basis, but was abandoned. A program of Extern Grants provides low level support for doctoral dissertations and faculty research.

- o FWL: Has a core full-time staff in San Francisco and a "Southern Service Center" on the campus of the CSU at Northridge. In addition, state assistance field agents (.2 FTE each) are located in Nevada, Utah, and Arizona. In connection with Task 3, a university faculty member in each of these three states serves as a State Policy Field Agent. Consultants are to supplement staff where specialized expertise is required for limited tasks.

- **McREL**: Has very small core staff in Colorado plus field office in Kansas City mostly for management support functions. Commissions some papers and does some subcontracting
- **NCREL**: Has very small core staff in Elmhurst, IL. Uses contributed staff, consultants, and subcontractors.
- **NE/I**: Prior to its 1988 reorganization, had core staff in Andover, MA, with some staff shared with other Network projects; other staff in 10 assistance centers (three in Andover and seven in field sites in host agencies).
- **NWREL**: core staff operating out of headquarters in Portland; field office for Pacific Region in Honolulu.
- **RBS**: large core staff plus considerable cost-sharing from partners in form of contributed staff
- **SEDL**: central staff operates out of Austin TX.
- **SEIL**: very small core staff; considerable use of subcontracts and consultants.

Thus the labs exhibit considerable variation in staff size, reliance on consultants, contributed staff, and contractors, and placement of staff in one or multiple locations.

Comments on Governance and Organization

The concept of regionalism in education was examined. It appears that there is as much variation within regions as between them and that the primary need for a regional approach to the lab mission lies in logistical considerations.

The nine regions served by the laboratories vary considerably in educational and demographic characteristics. While we continue to view the organizational infrastructure of the several regions as loose and fluid, it seems clear that the labs have managed to establish important mechanisms that link them to other organizations at the governance level, chiefly through policies concerning membership on the board of directors and establishment of various advisory groups and other adjunct structures. The organization of the labs at the regional level, outside the formal structure of the educational system, has its weaknesses. However, it is the very looseness of the educational configuration that seems to require an organization like the labs to play a catalytic role in bringing the disparate parts together in greater harmony.

All labs group projects into programs. For a few the programs correspond to RFP tasks, but for most the programs are spread across the tasks. Most labs are quite self-contained regarding staff, although all use consultants and sub-contracts from time to time. For a few, the use of outside resources is more than incidental.

The task structure formulated in the RFP may be valuable for clarifying the mission of laboratories, but it does not seem to provide a useful way for labs to organize their programs or report to OERI. Whether some form of matrix management is needed to provide flexibility or merely provides a cross-walk for reporting to OERI by task is not clear.

CHAPTER III

PLANNING*

Introduction

Federal Specifications

An orientation toward rational systems is most evident in the required planning component. The RFP lays out three subtasks under Task 1 (NIE 1984):

1.2 Assess regional needs, capabilities, and opportunities and establish priorities for laboratory activity.

1.3 Prepare revised plans for future services.

1.4 Conduct self-evaluation of laboratory projects and services.

The text under these subtasks reveals a complex and sophisticated model of planning and management. Needs are to be assessed with such mechanisms as advisory committees, surveys, content analysis of media, and documentation of lab activities. Self-assessment is expected to serve a formative evaluation function and feedback into the planning cycle. The board of directors should play multiple roles as both a source and a consumer of needs and self-assessment information.

In addition, each lab must conduct a census and analysis of R&D and service improvement organizations in the region to assess the capacity of the improvement infrastructure in relation to the

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*Planning done under earlier planning grants is not part of this review except as it is reflected in the plans for 1986-90.

the needs identified as well as to its own capacity. Analysis of these data leads to setting priorities and planning specific programs and services. This process is viewed as continuous, and useful for both fine-tuning day-to-day operations and making major program planning decisions, such as developing the three-year plan for 1988-90.

Each lab was asked to provide a graphic display of the total process. To illustrate, Figure 5 shows the process described by FWL/WREL, which is typical. Shown as a systems chart, it indicates the highly rational and complex set of tasks required.

Planning Models

The process described above seems to represent the convergence of thinking from several conceptual starting points. "Evaluation," "needs assessment," and "planning" have all been used as the master concept subsuming all stages of the process. For example, under the evaluation rubric, Stufflebeam et al (1971) developed the CIPP model that encompassed these processes under the headings of:

Context evaluation
Input evaluation
Process evaluation
Product evaluation

Beginning with a system approach to planning, Kaufman (1979) elaborated six types of needs assessment, each associated with one of the six steps of a general systems problem-solving model:

Alpha: Identify problem based upon need

Beta: Determine solution requirements and identify solution alternatives

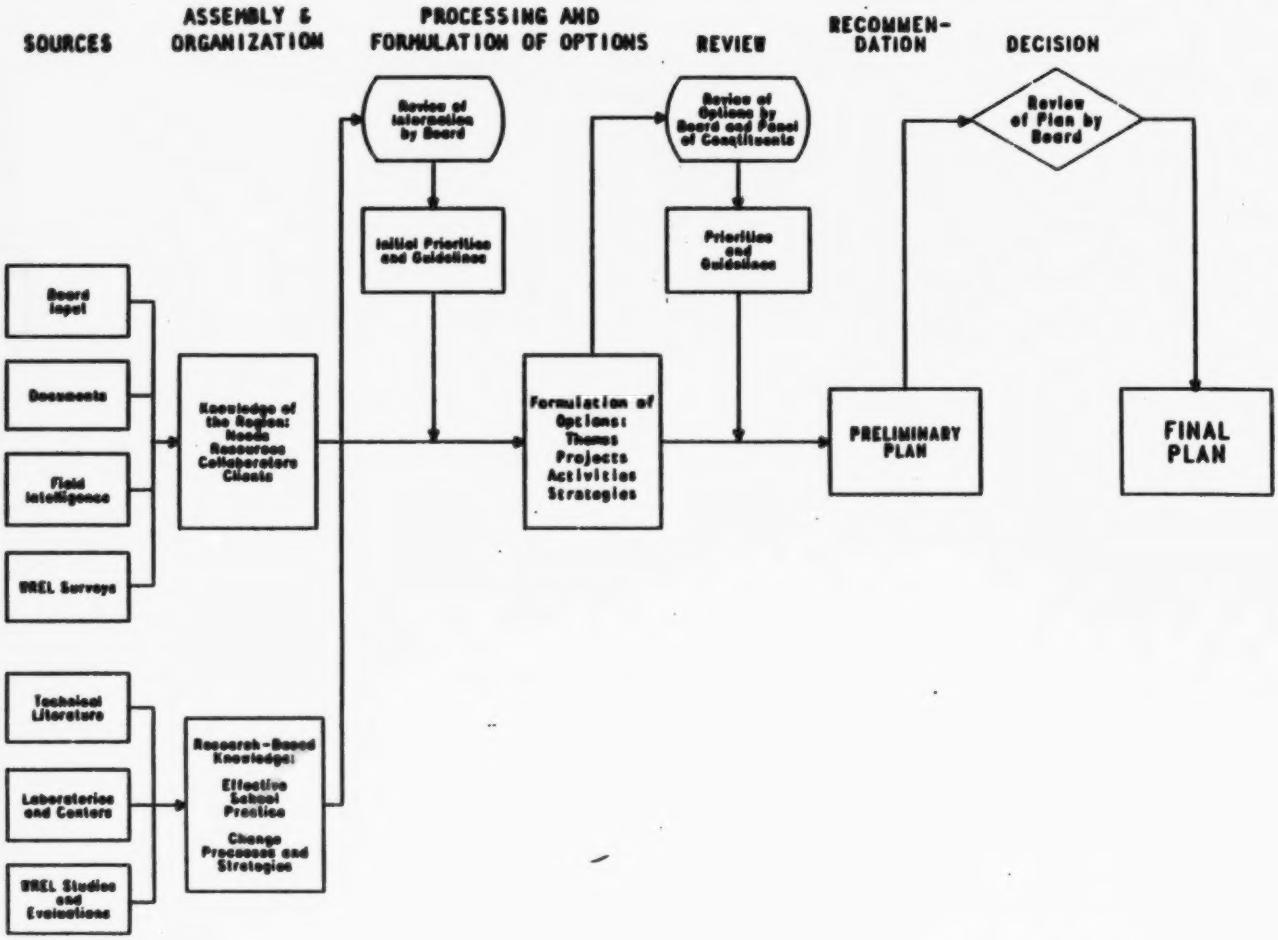
SOURCES
ASSEMBLY & ORGANIZATION
PROCESSING AND FORMULATION OF OPTIONS
REVIEW
RECOMMEN-DATION
DECISION
Review of Information by Board
Initial Priorities and Guidelines
Review of Options by Board and Panel of Constituents
Priorities and Guidelines
Review of Plan by Board
Board Input
Documents
Field Intelligence
WREL Surveys
Knowledge of the Region: Needs Resources Collaborators Clients
Formulation of Options: Themes Projects Activities Strategies
PRELIMINARY PLAN
FINAL PLAN
Technical Literature
Laboratories and Centers
WREL Studies and Evaluations
Research-Based Knowledge: Effective School Practice Change Processes and Strategies

Figure 4. The Far West Laboratory Planning Process

Gamma: Select solution strategies from among alternatives

Delta: Implement

Epsilon: Determine performance effectiveness

Zeta: Revise as required

Similarly, working from a chain model of educational needs, Waks (1979) identifies:

Context inquiries

Attainment needs

Process needs assessment

Maintenance needs assessments

Resource needs assessments
- o Personnel assessments
- o Organizational assessments
- o Facilities assessments
- o Financial assessments

Finally, a field of strategic planning has been elaborated that encompasses external environmental scanning, internal capacity analysis, participation and involvement, mission and strategic goals, implementation/linkage plans, and monitoring and assessment (Steiner 1979; McCune, no date). Several labs have explicitly used variations of strategic planning (McREL, SEIL).

All these models cover more or less the same set of processes but use a different master concept, depending on the starting point. For our purposes it is only necessary to note that the writers of the lab RFP specified a set of requirements for Task 1 that was consistent with these different traditions.

From an examination of these models and the subtasks required of the labs, the following general planning model can be inferred:

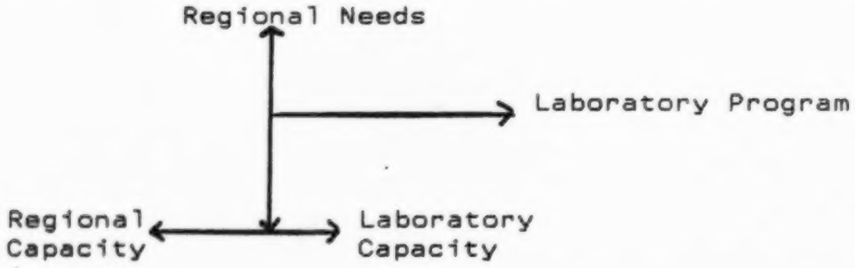

Figure 5. Strategic Planning Model.

According to this model, the lab first assesses the region's needs and the capacity of its infrastructure to meet them. It then derives its program from this analysis and an assessment of its own capacities.

Issues

This highly rational planning process appears to be in tension with the previously noted recognition that labs must operate in a fluid configuration of educational agencies. Lindblom and Cohen have argued that social problem-solving is basically an interactive process and does not evolve in any simple way from professional social inquiry (1979). Clark maintains that plans more often represent an understanding of what has already been done rather than a useful prescription for future action (1980). Whether the imposition of rational planning methods on the labs represents a conflict and inconsistency or whether the planning process constitutes a useful adaptive mechanism for operating in a non-rational environment is something I hope will emerge from the analysis. Other issues concern the extent to which the general model has been implemented, and the degree to which plans and activities flow logically from the planning process.

Organization of Chapter.

The sections that follow discuss each of the major components, needs sensing, capacity assessment, and self-assessment in turn, and examine how the planning and management process all fits together.

Needs Assessment

Theoretical Basis.

Needs sensing or assessment seems to correspond to context evaluation in CIPP model, contextual inquiry in Waks' model, and environmental scanning in strategic planning. While the idea of measuring educational needs appears intuitively simple and straightforward, Waks (1979) points out are at least four meanings of "need":

- The norm-based sense of need: something required by a prescriptive rule or law, e.g. "one needs a license to go fishing here"
- The goal-based sense of need: a necessary means to attainment of an explicit goal
- The motive senses of need: a want or desire
- The injury sense of need: when lack causes harm

These senses are not mutually exclusive. The labs primarily seem to use a goal-based sense of need with some overtones of injury or gap. In the planning context, needs assessments are practical ways for measuring needs and therefore goals.

> Goals are an important focus in most needs assessment studies. By determining needs, goals are being verified or validated, selected from alternatives, refined, or converted into more specific objectives. Needs

> assessments are tools for determining the goals of a service agency (Waks 1979, p. 63).

The _sine qua non_ of a laboratory is its orientation toward meeting regional educational needs. The needs assessment function is thus the keystone activity, and inquiring about the sources and methods used in determining those needs is essential.

_Sources and Methods_*

As has been noted above, all labs rely on their boards of directors to some extent for needs sensing input. Staff contacts and information gleaned in meetings of all kinds are also important. In terms of more formal methods of data collection and analysis, tremendous variation exists among the labs. Some rely on an analysis of one or two types of data, while others (FWL, NWREL) use the 1987 report to summarize a long history of detailed studies using a wide variety of data sources.

Adjunct Structures. The first method of needs assessment involves the formation of adjunct structures, such as advisory committees and formal partnerships. In general, there are two kinds of advisory committees: those organized by state and those organized on a program or project basis. The new labs in particular opted for elaborate advisory structures. Note the following memberships:

- o NCREL: 140 members in 7 State Advisory Councils
- o NE/I: 219 members in 9 Advisory Committees (later dissolved)

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*This section is based largely on the needs and capabilities report required as a contract deliverable as part of the continuation proposal for the third through fifth years. Other needs data are to be found in the original five-year proposal.

- SEIL: 109 members in 6 State Advisory Committees

Among the old labs, NWREL and SEDL convened ad hoc state advisory groups for the recompetition, but have not continued to involve them as such. (SEDL has involved some of the same individuals in other adjunct groups.) State advisory committees are partly needs-sensing mechanisms, partly dissemination/liaison vehicles, and in some cases have a role in the governance of the lab through nominating or electing board members. Committee discussions make it possible for representatives of different constituencies to share and compare their views and give the laboratory a more in-depth and qualitative view.

It is interesting to speculate on why the new labs are far more likely to rely on adjunct structures. Perhaps the old labs are sufficiently tied in to the educational infrastructure of their regions through their governance and program activities, while the new labs, having new governance and program structures, need the additional mechanisms on at least a temporary basis. Note also that state advisory groups are cross-constituency groups; they attempt to represent a cross-section of educational stakeholders in the state. By contrast, the older labs appear to favor more formal ties to specific constituencies. We have already noted how four groups are represented directly on the Board of AEL, and how nine signatory agencies appoint 22 members of the FWL Board.

For program purposes, RBS has established formal partnerships with five groups (some new, some pre-existing):

- Rural Exchange Network
- Maryland Council of Assistant Superintendents

- Intermediate Units of Pennsylvania
- Mid-Atlantic Metropolitan Council
- Urban School Superintendents of New Jersey

While these groups serve primarily as vehicles for program operations, they are also sources of needs input.

Program and project advisory groups (to be discussed more fully in connection with Tasks 2-4) serve primarily as input for fine-tuning existing activities rather than planning new initiatives.

Quantitative Data. Labs employ a wide variety of methods for gathering quantitative data, including surveys, content analysis of media, secondary analysis of published economic, demographic, social, and educational indicators; and logs of program activity such as telephone contacts and services requests. The profile of methods used by each lab is shown in Table 2.

Table 2. Methods Used to Collect Needs Assessment Data.

Lab	Meetings	Surveys	Content Analysis	Indicators	Documentation
AEL		+	o		
FWL	+	+	+	+	+
McREL		+	+	+	+
NCREL*	+	+	+	+	+
NE/I	+	+	+	+	+
NWREL	+	+	-	-	+
RBS	-	+	+	+	+
SEDL	+	+	+		
SEIL	+		+	o	-

*NCREL is on a different schedule and no separate needs assessment report was required in 1987. Proposal for 88-89 was used.

KEY: + = method used and analysis provided
o = data collected but no analysis presented
- = no data collected

All labs used multiple methods, and some used all. This kind of profiling, however, is not very adequate because it masks the fact that a "+" in the table for one lab might mean a cursory discussion in a few paragraphs and for another it might mean a detailed analysis in a separately bound report.

Surveys. All labs except SEIL conducted at least one needs sensing survey, and some labs conducted two or three. Virtually all samples were purposive rather than random. In some cases a single group, e.g., superintendents, was studied, while in others many different groups were surveyed. Response rates varied from poor to mediocre. Data in survey format were also collected from members of advisory committees and participants in conferences, workshops, and other meetings.

Generally, the procedure was to ask respondents to rank or rate items from a list of possible educational problems. In at least three cases (AEL, NE/I, and SEDL), a common methodology developed by Grunig was employed. This involves asking for each item whether the respondent (1) ever thinks about the issue, (2) could make a difference, and (3) is connected to the issue. Although a great deal is made of the fact that this approach is based on communications theory, that theory is not explained or used to provide any special interpretation of the data. Indeed, although it seems possible that the three items might form a scale, no attempt is made to examine the interrelations of the three responses.

Beyond that, many objections have been raised to using attitude surveys for measuring needs (Waks 1979). Which sense of "need" is being employed? Are they attainment needs, process needs or resource needs? How does one distinguish between needs and wants? How does one weight the responses of different stakeholders?

Implicit in the needs assessment approach is the idea that needs can be prioritized and that need patterns will vary from region to region and state to state. Yet many of the issue statements are at the level of "improve the quality of teaching." But surely at this level, which is the level of the major components of the educational enterprise, every lab needs to have the capability of providing some KP or KU service. The need to set priorities comes only at lower levels of specificity where choices must be made among lower level objectives--e.g., which aspect of teaching quality is most in need of attention? Further, at some point the choices to be made become a technical issue that must be based on the best evidence from research and/or experience and not on attitudes or values. To summarize, if there is a place for a survey approach to needs assessment, it needs to find a place between the broad components of education on the one hand and the level of technical design on the other.

Indicators. All labs examine a variety of statistical indicators to demonstrate their understanding of their regional context, including economic, demographic, social, geographic, and educational data from many sources.

Strategic planning is the model often used either explicitly (McREL) or implicitly, as evidenced by the frequent reference to "environmental scanning" as the type of analysis employed. The analyses presented vary from superficial to sophisticated. McREL makes a plausible case on the basis of analysis of major economic shifts in its region for making the restructuring of education its broadest goal.

Attainment needs in Waks' sense are identified through analysis of NAEP and state testing data. RBS emphasized this type of analysis and published an analysis of regional test results for 1978-86. This type of analysis led to the identification of At Risk Youth as a program in several labs and as a cross-lab coordination theme.

Content Analysis of Trends. This category covers several different methodologies. Several labs, including AEL, McREL, and NE/I, employed the methodology popularized by John Naisbitt in Megatrends (1982) in which newspapers, magazines, professional journals, and newsletters are systematically collected, coded, and placed in a database. This category also encompasses the more traditional scholarly analysis of publications such as needs assessment reports of other regional or national organizations. A review of major national, educational reform reports is one type (SEIL) and documentation and analysis of state legislative reform activity is another .

Documentation of Operations. Many labs have devised systems of logs and reports for gathering data in the course of their normal operations that provide grist for the needs assessment mill. These include logs of telephone contacts, records of requests for assistance, telephone and mail followups of participants in conferences and workshops, etc. NE/I devised elaborate systems of this kind, perhaps prompted by its decentralized structure; its initial system proved to be too cumbersome and had to be modified.

Comments on Needs Assessment. The above section has described the range of methods used by labs for needs assessment, but it has not conveyed the considerable range in the depth and quality of the analysis.

Regional Capabilities

Federal Specifications.

The RFP requirements for studying regional capabilities were lumped with some others in Subtask 1.2:

> Assess regional needs, capabilities and opportunities and establish priorities for laboratory activity (p. 19).

In addition, it was noted that

> ...the assessment process should include a census and analysis of research and development organizations and the service improvement organizations in the region in terms of their school improvement activity (p 19).

It was explained that "Data on their activities are crucial to identifying gaps in services and possible partners for collaboration with the laboratory" (p. 19).

A further explication of the rationale behind this requirement is provided by Clark and Carroll (1980):

> Understanding the region means much more than identifying regional "needs" however they are defined. It means having an inventory of KP, KU, and school

> improvement activities already underway - their strengths and weaknesses; an understanding of the incentives and disincentives which influence agencies and actors in the KPU community; a feel for new or modified activities which are feasible and acceptable; a sense of the intrinsically interesting needs or problems in which individual agencies are willing to invest their resources (p. 4-1).

Nature of Data Available

In strategic planning a comparison of environmental press (demand) with institutional capacities (supply) is an essential element of the planning process (Steiner, 1979). OERI sought to focus on this type of analysis by requiring a separately bound "needs and capability assessment report" as part of the continuation proposal for the third through fifth years. It also required a statement of the lab's own organizational capability as part of the technical proposal.

The assessment of regional capabilities was the most poorly implemented component of the planning model. Why this should be so is not clear given the fact that a useful model for maintaining a database on institutions performing RDD&E or policy studies had been provided a few years earlier. NIE had sponsored a universe survey by the Bureau of Social Science Research of these organizations. Its conceptual framework and methodology had been detailed in the final report, ARROE--American Registry of Research and Related Organizations in Education, by Joanne Frankel, Laure Sharp and Albert Biderman (Frankel, Sharp and Biderman, 1979), available in ERIC. A derivative directory of organizations was published by FWL (Lehming, 1982).

There appears to be one source of confusion concerning the purpose of a regional capabilities assessment. A distinction can be made between KPU capacity for internal purposes (e.g. the evaluation unit of a city school system) and as a service for others (e.g. evaluation contractors in the private sector). Yet the RFP asked only for a census of service providers, and apparently most labs limited themselves to this perspective. Thus, for example, in publishing a directory of educational resource organizations, RBS eliminated SEAs and LEAs because they did not offer services to others. (But surely SEAs provide services to LEAs even if they aren't "for hire" for that purpose). No doubt RBS's services to the Philadelphia school district is limited by the fact that they have a considerable capability of their own. However, in negotiating its niche in the regional infrastructure, a lab must know whether it is dealing with SEAs and LEAs with KPU abilities. Perhaps the lab distinguishes between the information needed for its own purposes and that which would be useful to others in a published directory, but the analyses in the planning documents appear to be limited to service providers and ignore organizations with internal capacity only.

Another purpose of the resource inventory concerns the lab commitment to a "with and through" strategy. Labs need to identify other organizations they can work with and the type of relationship that might be established. In this context, it is well to recognize that some of these organizations may be in competition with the lab. Perhaps this is the reason that RBS did not include for profit agencies in its directory.

Only RBS has published a current directory, although at this writing NE/I has one in press. FWL has been maintaining such a database for some years, but its most recent directory was published in 1985. However, FWL has clearly gone the farthest over the years in carefully examining regional capabilities. Indeed. their report shows a two-page bibliography of laboratory studies, other regional studies, and national projects that provide analyses of the educational KPU capabilities of all kinds of institutional performers and of interorganizational networks. FWL would be in a position to provide leadership to new labs in making this a more realistic aspect of their planning.

Several other labs (McREL, NWREL, SEDL) achieved minimum compliance with this RFP requirement by providing lists of organizations by type, state, and contact person. But without information on areas such as field of expertise, type of KPU service, primary clients, and personnel, such lists are of limited planning value. Possibly each has more data in its files than it includes in its listing, and no doubt staff have personal knowledge of many other regional organizations.

No lab provides an analysis model for relating capability and needs information. SEDL provides an "environmental analysis" based on the market research model of Philip Kotler that contains a discussion of market environments and competitive environments and that includes a discussion of intermediaries ("with and through" organizations) and agencies offering competing services, but it is not clear what data they are working from.

Other labs sought to finesse this requirement by including one or more items in surveys of clients or constituents that asked about sources of help for different kinds of problems, or about opinions of the most appropriate roles for the regional laboratory. But this methodology may overlook some potential resources, and there are obvious difficulties in relying on second-hand information.

Comparison of Lab Regions

So far we have been discussing the collection and use of new information on regional KPU capacity. At the time the current lab programs were being planned, data on educational KPU organizational capacity were available by state and region (Frankel et al 1979). A crude comparison of the nine regions is shown in Table 3, which displays the percentage distribution of four kinds of KPU organization across regions, along with the distribution of population and OERI funds.

Clearly the distribution of KPU organizations of all kinds closely follows the distribution of enrollment. There is more variability in the profiles of specific kinds of organizations.

The interpretation of these data is complicated by another consideration. Some service needs are enrollment dependent and some are not. For example, if all the teachers of a certain type need a kind of retraining, then the size of the task depends on the number of teachers. But the amount of effort required to conduct a state policy analysis may not differ greatly in a small state and a

Table 3. Percentage Distribution of Educational KPU Organizational Resources, Public/Private Enrollment, and OERI Funds, by Lab/Region.

	Ed KPU Organizations#					FY 1987	Pub/Pvt
Lab	Small Public	Large Public	Pvt	Academic	Total	OERI Funds	Enrollment
AEL	5	4	4	6	5	9	7
FWL	19	7	13	10	12	14	12
McREL	5	9	8	8	7	8	6
NCREL	24	18	14	26	23	8	22
NE/I	14	9	26	16	17	11	15
NWREL*	6	7	3	5	5	17	4
RBS	9	13	22	9	12	14	10
SEDL	9	13	4	7	7	9	11
SEIL	9	21	6	13	11	9	13
Total	100%	101%	100%	100%	99%	99%	100%
Number	537	149	478	1,268	2,432	$16,975K	46,988K

*Does not include Pacific Territories

# Educational KPU organizations typology:

Small public: ISAs and LEAs with enrollments of 10,000-49,999
Large public: SEAs and LEAs with enrollments of 50,000 or more
Academic: institutions of higher education
Private: residual category

Source of organization data: Frankel, Sharp, and Biderman, 1979, Appendix F. Detail may not add to total because of rounding.

large one.

The table also shows the distribution of 1987 OERI funds. We can begin to see here why defining an equitable distribution of these funds is so difficult. One might argue that funds should follow the distribution of population or enrollment. However, some allowance seems to be necessary for factors such as different numbers of states in a region and the logistics problems found in regions with large land areas and dispersed populations. On the other hand, if the existence of other KPU organizational resources is taken into account, some kind of compensatory formula seems appropriate, i.e., more funds should go to regions with smaller regional capacity. Another consideration that came into play was the fact some labs are in a developmental stage while others are operational. No precise formula was ever worked out. The actual distribution apparently reflects some intuitive balancing of the above factors, plus one other: a hold harmless provision that enabled previously existing labs to receive no less than their previous allocation (conversation with David Mack).

Self-Assessment

Federal Specifications.

It is useful to approach the self-assessment function by reviewing some chronology. The RFP identified self-assessement (SA) as a sub-task of Task 1, placing it within the strategic planning cycle where five objectives were listed:

- o Assuring that work performed meets appropriate standards for quality and efficiency
- o Assuring that the laboratory carries out the mission,functions and purposes for laboratories
- o Using evaluation information as a basis for planning adjustments, follow-on activities, and new initiatives
- o Making staff evaluations
- o Contributing to knowledge about effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working.

This is quite a diverse set of purposes! The first three purposes clearly belong in the planning cycle. However, the use of data to make staff evaluations concerns a different management function. And the last is not a management function at all, but rather is a research objective. If one goal ties all these purposes together it is that of using information to renew and improve the functioning of the organization.

An annual SA report was required. Apparently some confusion existed about what was to be included in the report, and toward the end of the first year the contracting officer issued guidelines covering both the format and content of the report (Wormwood, 1986). Broadly, the report was to include an abstract, the design of the self-assessment, results, and use.

The reports submitted for the first contract year varied in content, quality, and detail. NCREL, which had been funded on a different cycle and operated under different requirements, did not submit a report. Some labs simply listed all their activities and sub-activities and reported on whether each had been completed. Some were short sub-sections of the annual report. In other cases, they were longer, consisting mostly of a rehash of SA design, either as described in the proposal or subsequently modified. Some submitted the raw data from client surveys, exit interviews from workshops, and the like, in mind-numbing detail. A few supplied reports that were reasonably thoughtful in coverage of at least some of the suggested evaluation questions, but appear more judgmental than empirical. Under these circumstances, an analysis of the first year reports probably would not be very fruitful.

It also became clear that, in addition to playing an internal role in each lab's planning and management system, SA was viewed as part of the OERI effort to evaluate the Laboratory Program. A consultant, Jerry P. Walker, was engaged to visit every lab to examine its evaluation-related activities and to elicit the views of lab personnel concerning OERI evaluation plans. It was during the second year that plans for the 1988-90 fiscal years had to be prepared, at which point the 1986 SAs were available, but those for 1987 were not. Each lab was visited by a site review team as part of that process.

No new guidelines were prepared for the 1987 SA report, but in December 1987 Charles Stalford, who was in charge of the OERI evaluation effort, confirmed that the Wormwood guidelines were still in effect and suggested some additional questions that might be addressed (Stalford, 1987). These emphasized the use made of SA by the governing board, an analysis of the strengths and limitations of the lab's capacity for SA, and identification of the activities and products that the lab considered the most productive and why. Particular interest was expressed in knowledge coming out of SA activities that might begin to yield generalizations about the strategies that worked best.

OERI also prepared an <u>Evaluation Plan for 1987-90</u>, which stated that the three components of the evaluation plan for regional educational laboratories were self-assessment, performance evaluation, and program evaluation. Labs were urged to report their shortcomings and strengths candidly, trusting that "While OERI has access to such reports as `deliverables,' the Agency understands their `in-process' nature and will therefore treat information in them carefully" (OERI, 1987, p. 5). Further, the idea of collecting uniform types of SA data across labs was disavowed. Although no additional specific guidelines were provided for SA, the following six questions were listed as guiding the overall evaluation, and were cited in some of the 1987 SA reports:

- What is the evidence that the laboratory has had a positive effect on educational practice within its region?
- Are laboratory products and activities well received by educators and state-level decisionmakers?
- Does the laboratory have productive working partnerships with organizations in its region whose cooperation is required to accomplish mutual objectives?
- Are the laboratory costs consistent with those of other labs for similar types of activities?
- Are constituent individuals and organizations in the region aware of the laboratory, its program and its products?
- Are the laboratory's products and activities of high quality?

While there is considerable overlap with other statements of evaluation objectives, there are a couple of new ones. The focus on lab visibility is new (but probably a very weak indicator). The focus on cost efficiency has been adapted to an intra-lab context by some labs. The most interesting addition is the focus on establishing "productive working partnerships," which seems to be an important indicator of success with the "with and through" strategy. The present descriptive synthesis report is one of three components of program evaluation in the OERI plan.

The analysis in this section is based largely on the 1987 self-assessment reports. (Again, NCREL, which was funded out of cycle, was not required to submit this report. It did provide some self-assessment information in its plan for 1988-89.) Designs that were described in the proposals often proved to be too ambitious to accomplish, and as a consequence 1987 self-assessment efforts often contain revised designs, diminished results, or both. Some contract compliance data come from annual reports. There is a tendency to duplicate information in the annual reports, needs assessment reports, and self-assessment reports, and OERI would do well to sort out what kinds of information should go into each.

Problems of Analysis

We have seen that the objectives for SA are diverse. In its broadest sense, SA encompasses the entire management system of the lab, including the collection of all information required for decision making, the allocation of responsibilities among positions and units for collection and review of information, the substance of the information collected, and the resultant actions taken. The technology required just for information collected is so extensive and complex it is almost impossible to summarize. For example, AEL lists 18 sources of evaluation information and 29 forms of documentation for 12 "generic" activities or products. Although not all kinds of information are collected for every activity or product, there are 191 information/product combinations. RBS identified 15 kinds of products and 13 kinds of activities to be evaluated. While other labs have not provided as complete a documentation of what is involved, this kind of detail is probably not atypical.

The use of much of this information is embedded in day to day lab operations. It is the stuff of weekly staff meetings at project, program, and institutional levels. Some of this gets aggregated to quarterly reports, annual reports, and SA reports (sometimes in too much detail), but much does not. Summarizing it all would serve no useful purpose. The challenge becomes one of sorting out the wheat from the chaff. Some labs seem hard pressed to find a middle ground between presenting raw, uninterpreted data, on the one hand, or presenting judgments and assessments, often of some interest, but without underlying evidence on the other.

For present purposes we have the problem of differences between designs and reports. Some of the SA designs, usually found in the original proposals but sometimes revised in later documents, appear comprehensive and sophisticated; but they are not always feasible, and both new and old labs have had to rethink and revise. And always there is the nagging question whether overemphasis on SA may not amount to stopping the train to blow the whistle. One way of coping with this problem has been to take the position that not all aspects of a comprehensive design need be implemented every year; rather, each year's SA report should focus on a few appropriate components. Using this rationale, most labs have chosen to delay focusing on the difficult task of measuring impact until the last year or two of the current five-year contract.

Another problem is that of distinguishing between ad hoc information and general knowledge. Both are needed, but it is important to distinguish between them. For example, data on whether lab constituents are aware of and value the lab is ad hoc information, but it is useful for formative evaluation purposes and in determining whether the lab is meeting certain accountability objectives. Data on whether a particular lab strategy is likely to lead to lab visibility and acceptance may be the beginning of building a knowledge base on which strategies are more effective under given conditions. Every lab is expected to spend some portion of its SA energy in contributing to general knowledge of this kind (see RFP).

Self-Assessment Designs and Mechanisms

The analysis of SA is composed of lab profiles on the evaluation questions addressed, the assessment models or images invoked, and the mechanisms used to implement the design. The data are found in Tables 4 and 5. While ideally a tabulation would have been made linking types of data collection and other mechanisms with evaluation questions, the necessary data were not always available. However, examples and impressionistic statements about these connections appear below.

A review of potential evaluation questions in the various sources mentioned in the "Federal Specifications" section above and from the lab designs yields a considerable list. The several sources are not consistent, and there is no implication that all are applicable.

It is useful to distinguish two kinds of evaluation questions.

Table 4. Design Features of FY 1987 Self-Assessments.

Design			#			##			
Feature	AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
I. EVALUATION QUESTIONS									
Criterion questions									
A. NEED STRATEGY									
1. Relevance		R	R	R	R	R	R	R	R
B. IMPROVEMENT STRATEGY									
2. Quality	Q	Q	Q	Q		Q	Q		Q
3. Utility		U	U			U	U	U	U
4. Impact/effect	I	I		I	I	I	I	I	I
5. Client satisfa	S	S	S		S	S	S	S	
C. INTERORGANIZATIONAL STRATEGY									
6. I/O arrangements		IO			IO	IO	IO		
7. Reach audience	A		A		A	A			A
8. Lab visibility	V				V	V			
D. ORG/MGMT STRATEGY						**			
9. Efficiency				E			E		
10. Capac for SA	C	C				C		C	
Purpose questions									
11. Improve program			P	P	P	P	P	P	
12. Improve org/mgmt					OM	OM		OM	OM
13. Improve SA	SA	SA	SA	SA		SA		SA	SA
14. Staff develop				SD	SD				
15. Compliance	C		C					C	C
16. Knowledge		K	K		K			K	
II. MODEL/IMAGE									
1. Systems/CIPP*	SY			CIPP*					
2. Quality contro	QC	QC					QC	QC	QC
3. Strategic plan		SP	SP						
4. Goal-free eval		GF		GF					
5. Instit renewal		IR			IR	IR		IR	

*Context, Input, Process, and Product mode

**NWREL addresses several org/mgmt issues dealing with its full range of contracts, but this is beyond the range of this OERI self assessment.

# McREL data from 1986 SA report. Final 1987 SA report not available.

##The NWREL SA report deals with their 193 contracts of which the OERI contract provides 49%

Those in the first group focus on a criterion of success, such as relevance or efficiency, 10 of which have been identified. Those in the second group of six deal with the purpose or use to be made of the SA and are concerned mostly with various kinds of desired improvements: improvements to the lab program, to lab organization and management, to SA, etc. Within limits, given criterion measures might be used for different purposes.

Further examination of the criterion questions reveals that most of them can be related to the three dimensions of our strategy cube (see Chapter I), plus two dealing with organization and management at a more general level. In Table 4 the evaluation questions have been classified as criterion or purpose questions, with the criterion questions further subdivided into the strategy or management dimensions to which they are related.

Evaluation Questions for Educational Need. The first strategic dimension deals with educational need or policy interest. Relevance is a criterion that addresses this strategic dimension and ties the SA back to needs assessment. It asks in the SA context whether the lab is continuing to support programs that are directed toward the needs of the region. Although not all labs are shown as highlighting this criterion in their 1987 SA reports, probably all do so either in their needs assessment reports or in their three to five-year plans. Those shown in the table have a formal method of classifying areas of program focus and matching these against needs profiles.

Evaluation Questions for the Improvement Strategy. A number of the other criterion evaluation questions, such as quality and efficiency, might be applied to either the improvement strategy or the interorganizational strategy. They are classified the way they are in Table 4 because this is the way they seem to have been interpreted by most of the labs. (NWREL addresses both the focus and quality of each of its five institutional functions, which are at the level of our strategies). It might be useful for the labs to go back and ask if some evaluation questions might be applied to both strategies (e.g., the quality, effectiveness, and impact of both improvement and interorganizational activities).

The improvement strategy is represented by several evaluation questions. Seven of the labs have instituted quality assurance systems (internal, external, or both). (No doubt the other two have at least an internal editing review, but the SA reports do not mention a quality control function.) They range from routine editorial review to internal and/or external technical peer review of papers and products. Some labs engage their boards and/or their advisory committees in the process. Data are collected in a wide variety of ways, including surveys of users, feedback forms collected after forums and workshops, and evaluation research conducted either by lab staff or subcontractors. Quality is assessed through judgments based on implicit or explicit technical or professional standards and is conceptually distinct from impact.

Utility is a more complex concept than it may appear at first. It is most commonly measured by asking clients whether they find a product or service to be useful. But is this an opinion or a judgment based on use? Examination of SA reports reveals that the data cited often represent judgments of potential usefulness, but as an opinion it overlaps with client satisfaction, which we have shown as a separate criterion. No labs seem to have identified utilization as a criterion in their design, although at least two actually study patterns of utilization by primary and secondary clients through tracer studies (AEL and SEIL). Being useful also implies something about impact or effectiveness, another criterion. It seems to me that the most analytically distinct concepts are use, client satisfaction, and impact, and that utility is some murky combination of the three.

Impact, sometimes termed "effectiveness," would seem to be the ultimate criterion for lab assessment. but this is one of the most controversial issues in the laboratory program, with respect to both self-assessment and OERI evaluation. One problem is the difficulty in distinguishing lab impact from other influences. This problem is compounded by the fact that OERI, in attempting to leverage its scarce resources, has mandated the "with and through" or indirect strategy, yet seems to demand evidence of impact at the classroom level. At the same time, education is acknowledged to be a loosely coupled system or configuration (see Chapter I above) in which ideas and products do not flow smoothly from one organization or position to another.

It may be helpful to give some examples of impact data collected by labs in FY 1987. As mentioned earlier, there is a general feeling that it will be more appropriate to measure impact toward the end of the five-year contract period. Nevertheless, some impact data relating to the improvement strategy are presented, which in many cases tend to be simple counts coming out of documentation systems, such as the number of documents distributed, the number of conference participants, etc. Such indicators tend to fall considerably short of measuring educational improvement; they are closer to being a measure of effort or activity.

Other assessments come closer to the mark. RBS, for example, has staff identify the type of impact that can be expected from each project or activity and then asks clients to rate the product or activity on those impact criteria. The potential impact areas are (RBS Self-Assessment Report, FY 87, p. 81):

- Increase awareness in particular area
- Provide input for decisionmaking
- Increase networking or collaboration
- Provide products and materials
- Improve organizational climate
- Improve planning, administration and management
- Improve classroom teaching
- Increase staff capability in other areas
- Improve instructional resources
- Increase student learning
- Increase parental involvement in schools

It should be noted that these are client ratings and not direct measures of impact. Note also that all of these except one ("increase networking or collaboration") are indicators of the impact of the improvement strategy, not the linkage strategy. They seem to be a mixture of proximate and more ultimate impact indicators. (The "provide" items may not be measures of impact at all.)

More direct measures can be found in tracer studies and special studies, which generally means an evaluation research project directed at a specific project or product. Both AEL and SEIL had their self-assessment subcontractor use a tracer methodology to study the spread and use of lab products.

NWREL is testing a conceptual framework that posits a six-stage continuum of impact as follows:

- User satisfaction
- Acquisition of knowledge and skills
- Use in planning
- Use in implementation
- Indirect outcomes
- Direct outcomes

Note that this framework defines user satisfaction, which we had listed as a separate criterion, as stage one of impact. This schema was tested in a case study of evaluation by NWREL'S Center for Performance Assessment and appears to hold promise.

While all labs express their desire to measure impact and provide some data that are at least proxies, they approach the issue with understandable caution. Given the problems of multiple causation in social phenomena, the methodological and theoretical tasks of screening out other influences to measure lab impact, especially more distal impacts, are considerable if not insurmountable.

We have listed client satisfaction as another evaluation question because it has been identified separately in some of the suggested guidelines, but, as noted in the NWREL scale, it can also be considered as one of the types of impact. Questionnaire surveys and telephone interviews are used by a number of labs to elicit expressions of satisfaction.

Evaluation Questions for the Linkage Strategy. Although the development of appropriate linkage strategies, particularly for working "with and through" other regional organizations, has been identified as one of the cornerstones of lab operation, the specification of related evaluation questions has been relatively weak. The one most on target appears not in the RFP discussion of SA but as one of six questions posed by the OERI evaluation:

> Does the laboratory have productive working partnerships with organizations in its region whose cooperation is required to accomplish mutual objectives?

Even this question is somewhat limited in that partnerships is only one mode of relationship, although it might be interpreted in a more generic sense. Several labs do list the organizations they work with and the networks they have helped to form, but the quality of those relationships is often difficult to judge. In Table 4 we have used the more generic term "interorganizational arrangements" to include all evaluation questions that focus on the establishment of effective partnerships, collaborations, networks or other working relationships. Only four labs seem to have such a focus (FWL, NE/I, NWREL, and RBS).

NE/I shows an explicit concern with assessment of the linkage strategy. This emerges as a second tier of evaluation questions appearing under the heading of laboratory effectiveness and impact:

> within the framework of [the five overarching goals that frame and structure the work of the lab], impact within

> the region can be thought of as successfully developing linkages; serving as a clearinghouse of improvement resources and knowledge; infusing knowledge from the research and development community into regional activity; implementing dissemination and assistance activities; and supporting school improvement efforts. (NE/I Year 2 Self-Assessment Report, p. 16).

These questions are then addressed under the following headings of the report (ibid, pp. 16-20):

- Convening, facilitating, and empowering
- Increasing capacity
- Broadening perspectives
- Disseminating and promoting research

NWREL identifies an "institutional function" that corresponds to the linkage strategy: "To what extent does NWREL promote communications and linkages among constituents and policy makers?" The focus question is, "Does NWREL encourage an exchange among regional networks of constituents?" This question is addressed in relation to five "categories of networks":

- NWREL's Board of Directors Program Committee
- Program policy boards
- Advisory committees for NWREL's areas of emphasis
- Special target populations
- School improvement organizations throughout the region

The quality question is, "Has NWREL enhanced the leadership capabilities and linkages of its constituents?" The lab suggests the possibility of applying the impact continuum mentioned above to this question.

Two other evaluation questions relating to the linkage strategy appear in several forms and deal with client contact and awareness:

- Are lab products and services reaching intended audiences?

- o Are constituent individuals and organizations in the region aware of the laboratory, its program, and its products?

The second of these is a bit of a sore point because of the "with and through" strategy. It is difficult to maintain lab visibility for products and services that are usually provided by an intermediary. This may be one reason that most labs try to retain some element of direct service. Only a few labs address these questions.

Evaluation Questions for Organization/Management. The fourth type of criterion question concerns measures of management performance that are more general in nature and not tied to lab mission. Two have been identified.

Efficiency, a common managerial standard, is difficult to measure in the lab context. Even though it is identified as a criterion in the RFP, no lab has actually attempted to measure it. RBS includes it in its design but has postponed measuring it until 1988. They define efficiency in terms of "whether [the] laboratory's programs, services, and products are performed in [a] cost-conscious manner with [a] minimum of waste and duplication of effort" (FY 1987 Self Assessment Report, p. A-2). This determination is made by the Executive Director and the Institutional Review Team by reviewing the laboratory's management systems, project plans, and project data base. To develop some measures of efficiency that could be used for cross-lab comparisons might require that OERI sponsor a special R&D project.

The second managerial criterion concerns the lab's capacity for __conducting self-assessment__. This criterion is mentioned only in the OERI evaluation plan as a possible optional SA issue. Four labs provide a discussion of their SA capacity, and, as we shall see below, a number have a goal of using the SA process to improve their SA system. To obtain a third-party perspective on their SA efforts AEL and SEIL employ external evaluation contractors and FWL and NWREL engage external advisory panels. Both McREL and SEDL used reports of OERI site review teams to modify their SA systems. Perhaps some kind of measure of capacity could be derived from a consideration of the mechanisms employed.

__Purpose Questions__

The other major type of evaluation question we have termed "purpose questions." Each identifies a purpose to be served without specifying the criteria to be employed. The other side of the purpose "coin" is the use to be made of the SA data. In some cases the data from criterion questions can be used, but in others additional measures would need to be identified. The data in Table 5 represent a mixture of stating the purpose in the evaluation design and citing examples of the use made of SA data.

__Improve Lab Programs__. The improvement of lab functioning is probably the central purpose of SA. This purpose is served at project, program, and institutional levels and includes both the fine-tuning of current work and the planning of future work. For the most part the use of documentation and evaluation data concerning specific projects and activities for the formative evaluation/improvement of products and services is too detailed to be reported. Most of this occurs at and is the responsibility of lower echelons and is part of day-to-day operations. Some labs report this kind of detail, while others prefer summaries and interpretations based on it. At the program and institutional levels labs use SA findings to continue, discontinue, restructure, and plan programs, reorganize the structure, and change strategies. Some examples:

> SEDL found that its Task 3 activities, which were essentially the dissemination of its programmatic theme outcomes to state decisionmakers, were too proactive and not in a position to respond to the emerging needs expressed by clients. As a result they decided to begin a wholly new program (ED-AIDE) in 1988-90 that represented a 180 degree change, i.e. to a program featuring limited short-term/rapid-response activities for regional partners and appropriate resource development activities.
>
> RBS had operated its Task 3 program on a state-by-state basis. However, feedback from state liaisons indicated increasing awareness of common or overlapping concerns. Recommendations have been made to disseminate information on project activities in one jurisdiction to the other four, and to promote project activities that encourage and involve multi-state participation.

Improve Lab Organization/Management. Several labs had external peer review teams or contractors that examined issues of lab governance and administration, including **staff development** and the improvement of **self-assessment** itself. Examples of recommendations and changes emerging from these processes are:

> NE/I expanded the Executive Committee of its board from 10 to 12 and from two chiefs to three in order to address concerns about the level of board and especially chief involvement.
>
> The FWL Evaluation Advisory Panel recommended that "You should stop trying to produce good evaluation data, beyond the required minimums, across all

> projects. Rather, you should work intensely with two or three projects that seem to have a high level of interest or capability to work on formative evaluation or documentation case studies. Second, you should develop a minimal set of institutional-level accountability indicators." (FWL 1987 Self Assessment Report, p. 48.)
>
> Staff development is listed as a purpose of SA only by NCREL, but no examples are provided. Some recommendations for strengthening staff development emerge from other activities in other laboratories (FWL and NE/I).

Comply with Contract Requirements. Contract compliance is a purpose more appropriately served by the annual reports, but it appears to be a central feature of the SA reports from AEL, McREL, SEDL, and SEIL . Some minimal pragmatic learnings can be gleaned from examples of "we were unable to do X because of barrier Y." But endless spelling out of program, project, and activity workscopes and outcomes can be deadly. OERI might consider shifting to a management-by-exception mode to avoid this difficulty (as well as designating the annual report as the place to report compliance information).

Increase General Knowledge. The RFP gives some salience to the goal of building the knowledge base concerning "effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working" (p. 21). Only four labs state this as a purpose of their SA efforts, although more than four actually report on "learnings" from SA activities. Some even commissioned special evaluation studies with external contractors.

An interesting gap exists between the empirical findings of SA activities on the one hand and statements concerning the knowledge gained on the other. Most of the reported data-based learnings are pragmatic and ad hoc bits of craft knowledge. It would take a major effort to sift through them to find patterns and consistencies. However, several labs, notably FWL and NE/I, have provided thoughtful discussions of major strategic issues that are informed by experience but not clearly derived from SA studies. Such discussions are valuable and should not be discouraged. But there is a desperate need for some theoretical and methodological frameworks that would enable the design of SA studies that might lead to more general principles. Dunn's work on the ADD model and a theory of applications is an example of what is needed (Dunn 1986 and 1987).

Model/Image.

While some labs approach SA and its related evaluation questions in a somewhat ad hoc manner, others refer to a more unifying model or image. Some of these appear more in the design than in the execution, but they give a further clue as to SA aspirations. Although we have indicated at least one model or image for every lab, some had to be inferred. In some cases an explicit framework is laid out and followed, while in others the image may be part of a background discussion. Although in most cases there is only one such model or image, FWL has referred to five.

Systems/CIPP. It is fair to say that all labs use systems concepts at least implicitly, and that systems concepts are implicit in the RFP. They all employ systems diagrams that show the flow of information between units, with feedback loops, etc. AEL uses an explicit input/output model that shows lab output as an input to service delivery organizations. NCREL incorporates the CIPP model (standing for context, input, process, and product evaluation) in its design. (Note that context evaluation corresponds to needs assessment.)

Management Quality Control. Virtually all labs view SA as a tool of management for maintaining control of operations and assuring accountability. In some labs this perspective is the figure and in others the ground. Whether there is an explicit three-level organizational design, project information is reviewed by program heads, and program information is reviewed by top management and the board.

Strategic Planning. We have said that the overall planning model under which the labs operate and of which SA is a component is strategic planning. In the SA context it comes into play primarily in addressing the relevance evaluation question.

Goal-Free Evaluation. The models or images discussed so far all represent forms of goal-based evaluation. The need for accountability under government contracts dictates at lease some use of such models. Some labs (FWL and NCREL) also aspire to use goal-free evaluation or its variants, but how this view is implemented is unclear.

Institutional Renewal. Finally, "institutional renewal" is the term we have given to an image in four labs. This image seems to be related to the fact that SA is part of the planning cycle and through successive iterations of that cycle the institution is continuously renewing itself.

Mechanisms for Implementation of Self-Assessment

The mechanisms for implementation of SA are the ways of collecting SA data and the organizational arrangements for review and decisionmaking. It is helpful to examine these mechanisms at three different organizational levels: the institutional, program, and project. (Some labs incorporate this three-level schema in their SA designs; for others we have inferred it.) Lab profiles are shown in Table 5. Some labs say that they have three-level SA systems but have limited the SA report to institutional level assessment. However, some program and project level information is contained in these reports.

Institutional Level. SA is employed by top management and the lab board to review the overall program in relation to the lab mission. Both external and internal mechanisms are employed.

Since 1980, RBS has used a three-person external peer review team, the Institutional Review Team, to provide an outside perspective on lab functioning. The team meets twice a year and focuses on different aspects of the lab as the need arises. It had a constant membership for several years, but will begin rotating the membership in 1988. One of the outcomes of the SEDL SA process was the decision to add an external peer review team to its SA system in 1988-90. To emphasize a more reflective look at institutional improvement, the team was given the interesting name

Table 5. Mechanisms for Implementation of FY 1987-88 Self-Assessment Designs

Mechanism	AEL	FWL	# McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
A. INSTITUTIONAL LEVEL									
1. EXTERNAL									
a. Peer review			*				X	**	
b. Subcontractor									
1. Meta eval SA	X						X		X
2. Gov/Mgmt									X
3. Program	X								X
c. Eval advis com		X				X			
d. State adv com's				X	X***				X
2. INTERNAL									
a. Mgmt council	X	X					X	X	
b. Mgmt retreat			X				X	X	
c. Portfolio review		X							
d. Eval position	X	X			X	X	X	X	X
e. Bd review	X	X						X	
f. Task 5 theme	X	X	X	X	X	X	X	LL	X
g. Compliance rev	X	X	X						X
B. PROGRAM LEVEL									
1. Advisory Com	X					X	X		
2. SA report focus	X		X	X			X	X	
3. Match needs asses		X	X			X	X		
C. PROJECT LEVEL									
1. DOCUMENTATION			(NO PROFILES AVAILABLE)						
a. Phone logs									
b. Request logs									
c. Field contacts									
d. Meeting minutes									
e. No. copies									
f. etc.									
2. EVALUATION									
a. Int qual asses	X			X	X		X	X	X
b. Ext qual asses		X			X		X	X	X
c. Feedback mech					X	X		X	X
d. Tracer studies	X							X	X
e. Special studies	X	X		X	X	X	X		

McREL data from 1986 SA report. Final 1987 SA report not yet available.
* McREL preliminary 1987 report used OERI site review panel report as focus.
** SEDL will add an external peer review panel in 1988-90.
***Dissolved in 1988

IR^3 Team, standing for institutional review, reflection, and renewal. A different kind of external peer review is provided by the OERI site review teams. A number of labs report the comments of these teams and their responses to them. A preliminary draft of the McREL 1987 SA report took the form of responses to the comments of its OERI site review team, but this report is not the one cited in our tabulations.

In other cases, subcontracts are let to external organizations to perform specific evaluations. Both AEL and SEIL use this device and employ this method for obtaining a meta evaluation of the lab's own SA efforts as well as evaluations of lab management and programs. The SEIL subcontract also examines lab governance. In both cases, subcontractors conducted tracer studies of specific lab programs.

Another external device is use of an external advisory committee specifically to advise the lab on its self-assessment design and operation. FWL employs such a group. In operation this group seems to go beyond this charter at times to function more like a peer review team for the total lab operation. NWREL employs a "consultant review panel" but provides little information on its operation.

State advisory committees, which provide needs assessment input, often function as an SA mechanism as well. Some labs use thes committees to review lab documents and products as part of the quality assurance system.

Other mechanisms are internal to the lab. Four labs mention some form of top management council consisting of the executive director and program heads that advised the executive director. The mechanisms used by boards vary and are not always easy to identify. Where the lab is part of a much larger organization there is usually a subcommittee with special lab oversight responsibilities. FWL has devised a specific technique modeled after financial investment models called portfolio review:

> To accomplish the review of the entire portfolio, a four-part form is used. In part one, the portfolio is scanned and...seven questions are answered pertaining to: risks; probability of payoff in terms of affecting school or classroom improvement; benefit-to-cost ratios; helping the Laboratory to develop or improve its capabilities to work with and through other agencies; improvements in the capacity to serve as a regional laboratory; successful cost-sharing; and maintaining a good reputation with key constituencies.
>
> ...the primary purpose of these questions is to promote discussion among staff that engender better common understanding of the strengths and weaknesses of the total program...
>
> Part two of the review is a scan of developmental areas. This scan responds to six questions: identify potential activities that would help FWL respond more effectively to emerging needs; which client groups are served least well; assistance strategies that are most strongly represented in the current program; promising technical assistance strategies that are most lacking; the most productive or promising things the Laboratory is doing in developing an effective and efficient R&D support capability; and the most critical or important capabilities that are needed to be more effective in meeting regional and national expectations for a regional laboratory.
>
> Part three is an evaluation of the total portfolio. Again, a seven-point agreement rating scale is employed...ranging from low to high agreement. The instructions are, "Considering the present set of activities contained in the Regional Programs portfolio, how would you rate the portfolio on the following characteristics?" [fifteen characteristics]

> Part four of the portfolio review is a contingency planning exercise, which calls for responses to...three questions [hypothetical ten percent increase in funding, ten percent cut, and] what do you see as being the most promising things we could do to increase the return on investment of our present set of resources?
> (FWL Second Annual Self Evaluation Report, pp. 11-13, italics in original).

This illustrates how a technology can be developed to implement aspects of SA.

Seven labs have designated a specific internal evaluator position in the office of the executive director as the locus of responsibility for lab SA. In others, this is a responsibility of some other official. Specific sub-tasks may be delegated to line units.

There is a Task 5 theme for SA, for which SEDL is the lead lab and in which all labs participate. Meetings of staff responsible for SA have been held and labs have shared their SA reports with each other. A report on FY 1987 activities lists four objectives of this of the collaboration (Hoover 1988):

- To strengthen each individual institution's evaluation efforts by sharing expertise and ideas concerning laboratory evaluation purposes, designs, implementations, and results
- To assist the planning and implementation efforts of OERI as it carries out its responsibilities in Laboratory evaluation by providing input on effective and efficient ways to collect and use laboratory evaluation information
- To provide a broadened perspective on laboratory operations by synthesizing evaluation information on the effectiveness of selected major laboratory strategies
- To enhance planning for subsequent laboratory efforts by monitoring current trends in laboratory evaluation

work and reporting on accomplishments of the collaborative

Program Level. For the most part the designs say relatively little about special mechanisms at the program level. Basically SA at that level appears to consist of review by the program head and his or her project directors of project level data. A number of the SA reports are organized by program. This is probably the primary level for the conduct of compliance reviews. Program advisory committees are a specific mechanism used by three labs. But it is hard to find mechanisms for determining whether the programs are more than the sum of their project parts.

Project/Activity Level. Most SA data are collected at the project/activity level. Labs attempt documentation of many aspects of their operation. For example, they maintain logs of phone calls, document requests, field contacts, etc. As mentioned earlier, AEL listed 28 forms of documentation; but not all labs provide such lists, and no attempt will be made here to profile all documentation activities.

We will attempt a more specific profiling of evaluation mechanisms. Most labs have some form of internal quality assurance that reviews reports and products for editorial and technical quality. Five have external quality assurance systems as well. For the most part this consists of using rating forms, which are also used as feedback mechanisms to determine the reactions of participants in workshops and in other meetings. Such mechanisms may provide important formative data to lab writers and developers but are rarely of general interest.

Special mention needs to be made of tracer studies and other special studies that use more sophisticated designs to evaluate specific projects. Both AEL and SEIL employed outside subcontractors to conduct tracer studies to determine whether impacts could be traced from primary clients to secondary clients (both with disappointing results). SEDL attempted to build tracer data into its documentation system, but had little success.

Comments on Planning

Conceptual Issues

This chapter has covered a lot of territory. The implicit strategic planning model has included needs assessment, regional capacity, and self-assessment. The position taken here is that planning is the best term for this complex set of operations focused on the use of information for decisionmaking. One problem encountered is that each of the components of planning has tended to be "imperialistic," i.e., each component concept tends to expand to include territory claimed by the others. For example, needs assessment, as conceptualized by Kaufman, has been expanded to include the entire territory we have termed "planning." Similarly, evaluation has been used for the same purpose in the CIPP model . In the present analysis self-assessment starts as a discrete component of the strategic planning process, but when one examines the self-assessment reports they seem to include far more than self-assessment "properly so-called."

Under these circumstances, it is not surprising to see certain kinds of information appearing in multiple reports (i.e., plans, needs assessments, self-assessments, and annual reports). The labs and OERI need to work together to sort out the several purposes and reports so that each kind of information has its proper place. The need is to narrow the scope of each component concept to avoid overlap and exclude extraneous matters. In the sections below I will comment on each of the concepts and suggest some steps that might be taken to achieve this.

Needs Assessment

On the whole, labs seem to do a reasonably good job of assessing the needs of their regions. A variety of methods have been tried and many produce useful information. No doubt lab staff members have an even better "feel" for their regions than emerges from their formal methods.

Nevertheless, there are improvements that might be made. One need is some conceptual clarification as to the various possible types of need (see above). Another is to recognize that needs exist at different levels of generality. It is useful to distinguish three levels of generality, i.e.:

- Level of educational functions: e.g. improve teaching
- Level of choice: e.g., improve beginning teacher induction
- Level of design decisions: e.g., best ways to design a mentor teacher program.

The level of educational functions is largely inappropriate for needs assessment. Every lab should have the capacity to provide services for each of the major functional areas of education. (I say "largely" because there is the secondary consideration of the balance of effort among these areas.) At the other extreme, the level of design decisions, choices should be based on the best available research and craft knowledge; i.e., the decisions are technical decisions. Needs assessment should be focused on the middle level of generality, i.e. the level at which values and interpretations of the regional context operate.

Regional Capability Assessment

As indicated above, this was the most poorly implemented component of the planning model. No doubt the labs have better information on this topic than appears in their reports, if only the personal knowledge of the staff. However, we cannot understand whether this component is contributing to the planning function unless this knowledge and its application are made explicit. While an important start on the methodology of this assessment was made by the ARROE Study (Frankel et al 1979), elaborations are needed to make the measurement of organizational capacity commensurate with other elements of the planning model, i.e., needs or policy domains, improvement capacities, and linkage capacities.

Self-Assessment

The sorting out of multiple purposes needs to take place primarily in the self-assessment component. A number of the labs used a three-level model that identified SA questions and mechanisms at institutional, program, and project levels.

Not all these levels are appropriate. The 1986 SA reports included a much formative evaluation data from the project level. The older labs have a strong background in development, and they collect a significant amount of data aimed at making design decisions for fine-tuning product development. However, even here there are problems. For the most part these studies have yielded a large amount of craft knowledge that has yet to be codified and has only limited potential for building a knowledge base of more general application. Most evaluation is "black box" evaluation; e.g. clients are asked to evaluate some product whose characteristics have not be specified and for which the strategy for bridging organizational space has not been described. Where are the studies that compare the effectiveness of two workshop formats for the same type of audience or of one format with two types of clients? Where are the studies that compare two ways of organizing networks?

It was recognized that most of the formative evaluation data supplied in the 1986 SA reports was not very useful for SA purposes, and most labs complied with a request to reduce the amount of this detail in their 1987 reports. The next step would be to recognize that formative evaluation data are part of the development process and should be excluded from self-assessment. The relevant SA question would be: "Do we have adequate methods of formative evaluation in place in each program?"

Similarly, a great deal of the documentation data (phone logs etc.) may provide a useful descriptive context, but they are either grist for the formative evaluation mill or mere counts that require interpretation if they are to be understood in a self-assessment context.

Also, detailed contract compliance data are not the stuff of thoughtful consideration of lab mission and strategy. They belong in quarterly and annual reports, not self-assessment reports, and there only on a management-by-exception basis.

It is recommended that self-assessment (reportable to OERI) be limited to the institutional and program levels and focused more sharply on two aspects of lab operation: issues of organization and governance (e.g., is the lab organized in accordance with and operating within its mission?), and issues of strategy, (i.e., is the lab responding to the needs of the region, is it using the best improvement and linkage strategies, and is it contributing to the knowledge base concerning these strategies?). It appears that, with few exceptions, lab SA is not focused on the strategic questions of lab operation. (The notable exceptions are the AEL study of the study group methodology and the AEL and SEIL tracer studies.)

Another problem is the unavoidable overlap between SA and OERI's desire to evaluate the laboratory program as a whole. Given the history of prickly relationships between the labs and the government and the labs' strong sense of vulnerability, is a surprising amount of candor appears in their reports. While it is understandable to want to put a good face on everything, the labs acknowledge numerous problems and weaknesses.

More candor might be forthcoming if more of a separation between self-assessment and OERI evaluation could be achieved. One suggestion would be to try a different set of labels. "Evaluation" and "assessment" are terms that automatically trigger defensive mechanisms and stifle the intended learning and renewal purposes. Problems might be avoided by legitimizing a laboratory research program to study laboratory operations and functions, thus helping to move the labs away from their excessively empirical approach toward a more theoretically relevant agenda. The research fields involved include interorganizational theory, knowledge utilization, dissemination, and social change. Labs should be contributors as well as consumers of research in these fields.

A limited amount of work of this kind has been done, e.g., AEL's examination of the effectiveness of study groups as an R&D methodology and the SEIL tracer studies.

Reprise on Rational Planning

While planning is inevitably a proactive approach to problems, labs are also expected to be reactive. More than that, as sociologically marginal institutions they are constantly in the position of having to renegotiate their role in the regional infrastructure. The reports contain many examples of how, for example, a whole new relationship to an SEA had to be worked out when there was a change in chiefs. Such events create havoc with carefuly laid plans. The entire planning process needs to be examined to determine which parts have heuristic value and which ones play only ritualistic roles.

CHAPTER IV

WORK WITH STATE LEVEL DECISIONMAKERS ON SCHOOL IMPROVEMENT ISSUES

Introduction

Ever since the beginning of the educational reform movement triggered by the report of the National Commission on Excellence, A Nation At Risk, education policy issues have been much more salient at the state level. Many governors and state legislatures have placed educational improvement high on their agendas, and the National Governors' Association has issued its own report (National Governors' Association, 1986). Probably the key to the new focus on educational issues has been the realization of the importance of a strong educational system in the inter-state competition for economic development. A number of states have adopted comprehensive school improvement programs and virtually all states have undertaken specific reform initiatives that go beyond the usual financing issues. State level professional associations, and groups representing business, labor, and parents have been active in the accompanying policy debates.

However, the states vary greatly in their capacity to deal with these issues. Larger states such as New York and California have sophisticated staff in their SEAs and policy aides in the governor's office and legislative committees, but many others are ill-equipped to deal with the problems of policy formulation, implementation, and assessment. Further, states also vary greatly in the availability of non-governmental resources from such entities as universities and research firms.

It is in this context that we examine Task 3, which requires that labs "work with state-level decisionmakers on school improvement issues." Three illustrative tactics are listed in the RFP: technical assistance, providing issue-specific analyses and syntheses, and facilitating communication among state-level decisionmakers.

Federal Specifications

Unlike Tasks 2 and 4, which involve the "with and through" strategy, Task 3 states that the lab will work with state-level decisionmakers. This may or may not be a distinction without a difference. State-level groups are intermediaries with regard to school improvement at the local level. However, if the focus is on reform at the state policy level, state-level decisionmakers can be considered direct clients and the labs will be judged on the basis of their delivery of direct services for Task 3.

But what does it mean to "work with" state-level decisionmakers on school improvement issues? It is important to note that policy making is a social process while policy analysis is an intellectual activity (Dunn, 1986). Some observers have questioned the value of professional social inquiry in affecting the policy process (Lindblom and Cohen, 1979). Perhaps this is due to the primitive state of policy analysis and the lack of a sound theory of applications (Dunn, 1986). In any case, the mission of the labs under Task 3 is to assist state-level policy-makers to make better use of knowledge at various stages of the policymaking process.

State Education Policy Consortium

In 1983 NIE funded a two-year project with the State Policy Consortium, a group made up of the Council of Chief State School Officers, the Education Commission of the States, the National Association of State Boards of Education, the National Conference of State Legislatures, and the National Governors' Association. These national organizations count as their members many of the principal state-level decisionmakers who are the targets of the lab Task 3 efforts. Among other things, the project was designed to "...[improve] our understanding of the sources of information policymakers rely on, and of effective strategies for disseminating research to policymakers" (Cohen, 1985a, p. ii. See also Cohen, 1985b; Fuhrman and McDonnell, 1985a & 1985b). In addition the study made recommendations on the roles of the Consortium associations, the regional labs, the Center for Policy Research in Education, and OERI.

The project was completed in 1985 at the time that the new labs were being organized, and a meeting was held involving Consortium, lab, and OERI staff. As a result, the labs had the results of this project available at the time their new contracts began (although not necessarily at the time the plans were written).

A major finding of the research was the strong interest expressed among all states and stakeholders in having available information on the specific policy issues being addressed by other states. The project had collected a list of state policy "data bases," many of which were collected by the Consortium organizations, but many of these consisted of one-time studies. The report made recommendations concerning coordination and improvement in the collection of useful data by the member organizations. Three roles for the labs were suggested (Cohen, 1985b):

- Cooperation in developing in-depth descriptions of state policy provisions, on a 50-state basis, in selected policy issue areas (initially rejected by labs at meeting with Consortium staff in 1985)
- Conduct of studies of the implementation and impact of state policy initiatives
- Creation of an information base of studies of state policy implementation and impact conducted by other agencies and serving policy formulation needs

Elsewhere labs were urged to adopt dissemination strategies that "allow for easy access to information, low consumption costs for the user, a direct application of information to specific state or policy contexts, and timely receipt of information. Especially valuable is the use of structured meetings that encourage an informal interaction between information users and information providers" (Cohen, 1985b, p. 67). Further, in recognition of the importance of instate sources of information, the labs should establish or strengthen instate issue networks. This would involve identifying sources of expertise and bringing them together with state policymakers. Strengthening the capacity of the State Education Policy Seminars (SEPS), jointly sponsored by ECS and IEL, was recommended. Finally, labs can play a strong role in connecting state policymakers with national and state R&D networks and in studying local district and school responses to state improvement initiatives.

Methodological Issues

This is the first place that we encounter a methodological issue common to Tasks 2-5, namely the choice of a unit of analysis. The most detailed analysis could be done if we could identify and classify each project or activity conducted over the two-year period. However, this is difficult, if not impossible, for several reasons. First, while some activities are discrete units of work having finite time lines and determinable characteristics, others are ongoing services of a more open-ended nature (e.g., data base maintenance). Second, the amount of information available and the conceptual frameworks used vary greatly from project to project and from lab to lab. Third, there is no uniform way of structuring work into programs, projects, activities, and sub-activities. As a result, cruder methods are used here that apply to the entire task area for each lab, indicating either presence or absence of a particular tactic, or sometimes a degree of emphasis (high, medium, low). Based on these data, the attempt will be to find patterns indicative of broader strategies.

Organization of Chapter

The following sections describe lab activities under Task 3 for the three strategic dimensions of linkage strategy, improvement strategy, and educational need; identify the policy stage most frequently addressed; examine the national coordination of state policy activities; and then present a holistic picture of each lab's Task 3 program. Comments summarizing the analysis appear at the end of the chapter.

Findings

This task has the three strategic dimensions of the cube presented in Chapter I.

First, each lab needs to design a linkage strategy by deciding who its primary clients are and how it will relate to them. (Note that such "designs" allow for the possibility of opportunistic strategies.) A lab is expected not only to mediate relationships among organizations within the region but to provide access to national resources. Lab regional services should complement national resources with more context-specific assistance.

Second, each lab needs to design an improvement strategy in terms of some mix of KPU functions as they apply to selected stages of the policy process.

Third, each lab needs to determine whether it will attempt to work across a more or less comprehensive set of policy issues or domains or focus on a limited number of such issues, and, if the latter, which ones.

Cross-cutting these dimensions is a distinction concerning the goal of the activity: is the activity intended to build capacity for policy analysis (either the lab's or that of some other entity) or to do policy analysis?

Although the focus of this chapter is on Task 3, one of the themes developed under Task 5 (cross lab coordination) deals with state policy also and is addressed here.

State Policy Linkage Strategy

Profiles of the linkage strategies employed by labs in their second contract year are shown in Table 6. This table should not be taken as definitive because a service not shown in the table might be found under another task. In addition, data are derived both from plans and from progress reports, and sometimes discrepancies appear. Nevertheless, the table is indicative of broad patterns.

Table 6. Profiles of Lab Task 3 Linkage Strategies for Working with State-Level Decisionmakers on School Improvement Issues.

Linkage	Laboratory								
Strategy Component	AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
1. Collaborators									
a. Regional	HE	SPA	SEPS	SEAs	SEA,HE		ISA		HE
b. National	CVE			CPRE	ECS	ECS		CPRE	CPRE
2. Clients									
a. Primary	CH	CS	S	CS	CS	CS	S	SG	CH
b. Range	N	B	M	B	M	B	N	M	M
c. Type	N		O	AH		O	O	O	N
3. Communication									
a. Approach	S,R	R	S,R	S	S	R	S	S	R
b. Type	M,R,B	R	C,M	M,R	M,R	R,M,P	P	B	R

LEGEND:
1.a. Regional Collaboratorrs: Higher Ed Instituions; State Prof Assoc; Intermediate Service Agency
1.b. National Collaborators: CPRE, CVE (Center for Voc Ed); ECS (Ed. Commission of the States)
2.a. Primary Clients: Chiefs, SEAs, State Gov't, Cross Section
2.b. Range of Clients: Narrow, Medium, Broad
2.c. Type of Clients: Ad Hoc, Network, Organization
3.a. Communication Approach: State, Region
3.b. Communication Type: Meetings, Reports, Briefings, Consultations, Products

The three major dimensions of the linkage strategy are "three C's": collaborators, clients, and communication modes.

Collaborators. Collaborators are not nearly as significant for Task 3 as for Tasks 2 and 4 because the "with and through" strategy is not involved. At the national level, the Center for Policy Research in Education at Rutgers University cosponsored regional policy symposia with NCREL, SEDL, and SEIL, and the Center for Vocational Education collaborated with AEL. ECS worked on projects with NE/I and NWREL. Regional collaborators include SEAs, Intermediate Service Agencies, Institutions of Higher Education, and SEPS units (which, of course, are instrumentalities of two national organizations, ECS and IEL).

Clients. The number of possible groups to serve is considerabl A list of the major potential clients would include:

- Chief state school officers
- Other SEA personnel
- State board of education
- State higher education CEO and board
- Governor
- Governor's aides
- Legislators
- Legislative aides
- State professional associations
- State business associations
- State labor associations
- Other state advocacy groups
- Intermediate agencies
- LEAs

The latter two categories are included because they are sometimes involved in lab-sponsored meetings even though Task 3 is directed at state-level decisionmakers.

While there may be a desire to work with all these groups, limited resources, the number of states or other units to be served, and other considerations require some choices. The issues that arise regarding client selection are:

- o Which groups are given primacy?
- o Is the range of clients broad or narrow?
- o What form does the client group take?

Although, in a sense, SEA's are the primary clients of all labs, the variations on this theme are considerable. For AEL it is hard to overestimate the centrality of the chiefs as significant others. They all serve on the Board of Directors and collectively constitute the Council on Policy and Planning, which serves three functions: (1) it has special responsibility for reviewing lab projects regularly and recommending to the Board any changes in overall lab direction; (2) it serves as the Advisory Board for the Policy and Planning Center (i.e., the Task 3 program); and (3) individually, the Council members are the primary clients of the Policy and Planning Center.

For most labs the SEA as a whole is the primary client. RBS goes further than any other lab in defining itself as an adjunct to SEAs. (For details see the RBS configuration below.) Most labs also try to relate to other elements of the state government, i.e., the governor's office and legislative committees. SEDL seems to have the most balance in its attention to the several components of the state government.

Four labs deal with a cross section of state-level decisionmakers that goes beyond state government to include state professional associations and various advocacy groups (FWL, NCREL, NE/I, and NWREL). (Not that other labs exclude such groups; it is a matter of emphasis and balance.)

This discussion leads into a characterization of the range of clients as narrow, medium, or broad. The coding on this factor in Table 3 is admittedly impressionistic but takes us a step beyond identifying the primary client. AEL and RBS seem to have the narrowest focus on state-level decisionmakers, and FWL, NCREL, and NWREL the broadest.

Finally, the **type of client** may be a formal organization, networks of individuals, or ad hoc collections of individuals. Coding of this item is particularly difficult because the individuals served invariably have roles in client organizations. But it makes a big difference whether the individual is involved for personal reasons (e.g, professional development) or organizational reasons (e.g., implementation of a training program). As we shall see below, at least one lab made the mistake of selecting for a trainer of trainers program individuals who had no organizational responsibility for inservice training.

For Task 3 most labs seem to emphasize the formal organization as the client. For example, NWREL has a broad clientele and often makes presentations at meetings of professional associations and other groups. In a number of cases networks have been established among legislative aides in different states or among legislative aides, governors aides, and SEA policy representatives. We also classified the chiefs involved with the AEL Policy and Planning Center as a network, although it might be considered a formal organization. Unfortunately, it is often difficult to tell from the documentation whether those involved in an activity constitute a network or an ad hoc group.

State and regional policy forums and symposia usually have an ad hoc participation depending on the topic, but may involve continuing networks.

Communication Mode. The third facet of the linkage strategy is the mode of communication. A major difference in **communication approach** occurs between activities that are organized on a state-by-state basis and those that are organized regionally. Determining which is more appropriate will depend on a number of considerations. To the extent that states within a region have common problems and interests, a regional approach is feasible; where there are considerable differences among the states, dealing with them individually may be required. There is a continuing tension between the need to be responsive to varying needs and contexts and the need to bring broader perspectives to bear on problems that are rarely unique. Many labs have opted to work with the State Education Policy Seminars (SEPS) jointly sponsored by ECS and IEL, and this format requires a state approach. In other cases labs have cooperated with the Center for Policy Research in Education (CPRE) in organizing regional policy symposia. Aside from meetings, most direct services such as those provided to chiefs and SEAs are organized on a state basis. SEDL has made a special effort to provide more or less identical services to each state in its region, but to organize them by state, not by region.

(Interview with institutional liaison).

Many types of communication are employed, including meetings, reports, briefings, consultations, and products. Meetings in their various forms (symposia, forums, conferences, etc.) generally involve the widest array of participants. Meetings and reports in various "Dunn types" (i.e., policy issue papers, policy briefs, policy news releases) are common to almost all labs. SEDL is noteworthy for its frequent use of briefings for state personnel and its attempt to use an electronic bulletin board (later abandoned). Both FWL and NE/I have consulted directly with legislative committees on specific pieces of legislation.

Policy Improvement Strategy

The services offered as part of the policy improvement strategy are shown in Table 7. (The caveats enumerated for Table 3 also apply here.) They cover the entire spectrum of KPU activities. (In this table an "X" is used to indicate presence of the strategy component in one or more activities or projects.)

Information Services. Clearly labs see themselves as sources of knowledge in the broadest sense. In the first instance, this takes the form of a number of specific information services. These are separated in the analysis from other improvement activities because they are primarily capacity-building functions; they provide an information resource that facilitates the actual performance of policy inquiry. Information services include:

- Development of several types of databases
- Preparation and dissemination of reports based on

these databases

- o Provision of search and retrieval services.

Labs may either use their own resources or help clients find other resources in or outside of the region.

Table 7. Profiles of Lab Task 3 Policy Improvement Strategies, and Policy Stage Emphasized.

Profile Component	Laboratory								
	AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
A. POLICY IMPROVEMENT									
1. Information									
a. DB Develop		X	X			X		X	X
b. DB Reports	X		X			X		X	X
c. Search/Retr	X		X				X	X	
2. Policy KPU									
a. Research									
b. Evaluation		X					X		X
c. Anal/Briefs	X	X	X	X	X	X	X	X	X
d. Development						X	X		X
e. Tech Assist		X	X		X	X	X		
f. Staff Devel			X				X		
g. Demonstration							X		
B. POLICY STAGE	A,F	A,F,E	F	F	F	A,F	I,E	F	F

LEGEND:
A. Policy Improvement: X = present
B. Policy Stage Emphasized: Agenda, Formulation, Implementation, Evaluation

The specific nature of the databases is not described in detail in the documentation reviewed. In many cases databases consist of materials in a file drawer or library collection. In some cases a formal content analysis of the document has been prepared. Retrieval and analysis are often manual but in a few cases files have been entered in a computer and can be retrieved and analyzed electronically. Overlap with Task 1 is suggested by the inclusion here of databases on indicators (education, social, demographic, economic, etc.) and educational issues.

The study of information needs of state policymakers by the State Policy Consortium found a great interest in the policies and reform initiatives of other states (Cohen 1985a). Four labs indicate that they are tracking this information for states within their region (FWL, NE/I, NWREL, and SEIL). The national associations involved in the State Policy Consortium (see above) have collected this kind of data from time to time. However, for reasons that are not clear, the state policy coordinators, meeting to plan cooperative activities under Task 5, rejected the idea of all nine labs cooperating to produce this database. (The "policy issues matrix" adopted is used to keep track of policy issues on which the labs themselves are working. See Policy Domains section below. Only SEIL uses it to track state reform efforts.) Given the strong interest in this kind of information, its relevance to the Task 3 responsibilities of all labs, and the continuing interest of national organizations, it seems unfortunate that it has not been possible to organize a national system that would track state policies, programs, and reforms on a comprehensive and continuing basis.

In several instances there are databases on special topics related to lab programs. Thus, NWREL has a regional database of information relevant to the education of at-risk youth in the Northwest. Other specialized files include those on service organizations and consultants.

These databases are used to provide both _reports_ of general interest to decisionmakers throughout the region and to prepare targeted reports for given states or even to local districts. Thus, McREL reported in 1987 that during the past year it had produced a national, a regional, and two state environmental scans.

Labs typically offer _search and retrieval_ (and sometimes synthesis) services to chiefs and other state officials. For example, AEL offers to conduct searches and prepare two syntheses for each chief in its region each year. However, a dilemma is inherent in these activities. On the one hand, demand for such services may be slow to develop (as AEL found); on the other, too much demand will strain lab resources, and labs don't want to compete with general information centers.

Policy KPU. Beyond the capacity-building activities of information services are activities or services that are ways of doing (or assisting in doing) policy inquiry. Of course this is not an entirely clear distinction in that doing something undoubtedly tends to add to the capacity for doing it. But the obverse is not necessarily true; it is possible to build capacity without actually doing. (e.g., one can learn to do arithmetic without using arithmetic to solve problems.)

Many of the labs have used conceptual frameworks developed by William Dunn to distinguish between policy research and policy analysis (Dunn 1986). In brief, _policy research_ responds to problems identified by researchers, collects and analyzes new data, operates in a long time frame, and uses complex methods. Policy analysis responds to problems identified by policymakers, and uses available information and simple methods in a short time frame.

In these terms only FWL conducts policy research, although two others conduct policy evaluation, which can be considered a form of policy research. In 1987, FWL conducted a research study of the link between teacher recruitment and retention and a teacher information system in California. It also evaluated the Utah Career Ladder System. RBS assisted the District of Columbia Public Schools in evaluating a career-focused dropout prevention strategy. For FWL and NWREL policy evaluation is a source of contract work that operates outside of the OERI scope of work.

Dunn has elaborated what he calls the ADD model of policy analysis, i.e., types of Analysis, Development, and Dissemination (Dunn, 1986). This schema would be useful for a more micro analysis if the necessary detailed data were available and we were able to use specific reports or projects as units of analysis. Since this is not feasible, we are using a more traditional Knowledge Production and Utilization (KPU) framework (Mason, 1982), but introduce the Dunn concept of policy analysis as a special type of research.

All of the labs perform policy analysis and/or prepare policy briefs. The issues examined will be dealt with below in the section of policy domains. Sometimes the papers are prepared for presentation at a policy forum or symposium. In other cases they are printed and distributed to selected lists of state policymakers. SEIL has chosen to go the sub-contract route for doing policy analysis. Agreements have been reached with the Educational Policy Center of the University of South Carolina and the Center for Policy Studies at Florida State University to provide on-demand policy analyses and alternative policy configurations for state-level decisionmakers within the region. In the Dunn framework, policy briefs are shorter versions of policy issue papers; labs often distribute policy briefs as newsletter inserts.

A limited amount of development is undertaken. RBS, for example, does some instrument and handbook development as part of its assistance to the implementation of state school improvement programs.

Another form of service is technical assistance, which may take the form of reports designed to assist a specific client, or in-person consultation. McREL, NE/I, NWREL, and RBS are most involved in this type of work. For example, the New Hampshire Assistance Center of NE/I helped the Alliance for Effective Schools (a broadly based group promoting school improvement) to develop plans for a school improvement project based on a model developed for special education. Technical assistance is a source of additional contract work for some labs.

Finally, labs provide a limited amount of staff development, and in some cases develop training materials. McREL, for example, is conducting a job analysis of the knowledge, skills, and competencies needed by state agency staff to prepare for a systematic training program in strategic planning.

Policy Stage.

As indicated earlier, the policy process is a social activity. Mitchell and Dunn, among others, have pointed out that the policy process goes through several stages and continues to recycle (Mitchell, 1979; Dunn, 1986). Their fairly elaborate models suggest that different kinds of policy relevant information are most appropriate for each stage of the policy process.

Table 7 characterizes the Task 3 efforts of the labs in terms of the policy stage emphasized. Labs show a marked preference for the early stages of the policy process. Policy formulation is the modal stage, and several are also active at the agenda setting. All are involved in the latter to the extent that they share the results of their needs identification work under Task 1 with state-level decisionmakers.

The clear exception to the overall preference to the early stages is RBS, which appears to operate almost entirely at the policy implementation and evaluation stages. In the years before the current OERI contact Pennsylvania, New Jersey, and Delaware had all adopted ambitious state school improvement programs. In a sense many of the major policy decisions were already made and embodied in these programs. Consequently RBS chose to focus its assistance on the implementation and evaluation of these programs.

Policy Issues and Domains

The third side of the "strategy cube" is the identification of the substantive areas of program work, whether labeled "educational need" or "policy issue." The strategic planning design for laboratories requires that they select their programs and projects through a process of studying the needs and resources of the region (see above).

Fortunately, as part of work under the state policy theme of Task 5 (see below), a common classification of policy issues has been devised. Using this classification, a "policy issues matrix" has been established as an on-line database on the Source. This database consists of a list of 50 policy issues for which each lab indicates the nature of its involvement with the issue, using the following code:

0 Not an organizational theme or policy issue area

1 An emerging policy issue area or staff interest area

2 An organizational theme, but not specifically identified as a policy issue area

3 A short-term or one-time state policy issue

4 An ongoing Task 3 state policy issue

This database enables labs and others with access to the Source to identify labs that are working in specific policy arenas. It also enables us to analyze patterns of lab activity across policy issues. (Note that it is not limited to Task 3 activities. See next page.)

Less fortunately, the classification was not derived theoretically and thus consists of a "laundry list." As such, it may be useful for searching, but has little analytic value. To cope with this problem, a more general and theory-based classification has been adapted that seems to have categories that are mutually exclusive and comprehensive. It was developed by Mitchell and is found in the FWL proposal (pp. II-109-110). (This classification is similar to but not identical to that proposed in Mitchell and Encarnation, 1983). The 50 policy matrix categories are mapped into the seven Mitchell classes along with one of our own. Our adaptation adds a category of policy issues defined in terms of the class of student involved (e.g., dropouts, urban) rather than an educational issue per se.

The codes used to record lab activity present another problem. In the present context we are interested in identifying the policy domains of lab Task 3 activity. Tabulating the incidence of code 4 would seem to do this, but only if we use a narrow definition of Task 3 activity, namely that it is an "ongoing" Task 3 state policy issue interest. In a number of instances labs have undertaken the study of a policy issue on a one-time basis. Inclusion of code 3, "a short-term or one-time state policy issue," would seem to provide the answer. It is not clear, however, whether this is restricted to Task 3 activities or includes work under other tasks.

Table 8 uses the broad definition of involvement, indicating the number of "policy matrix issues" each lab is involved with at either the 3 or 4 level, classified into the more general policy domain categories. (Note that the table entries are numbers of issues addressed, not the involvement levels.)

Several patterns stand out. Two-thirds of the policy issue involvements are found in three domains: curriculum and

Table 8. Number of Policy Matrix Issues Addressed at Involvement Level 3 or 4*, by Laboratory and Policy Domain.

Policy Domain	Laboratory									ALL LABS
	AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL	
Bldg & Facilities	0	0	0	0	0	0	0	0	0	0
Curr & Instructio	1	7	7	3	1	2	0	2	1	24
Org & Governance	0	3	1	2	1	0	2	2	1	12
Prog Definition	0	1	2	2	0	0	1	0	0	6
School Finance	0	0	1	0	0	0	0	0	1	2
School Personnel	2	3	5	5	3	1	4	4	2	29
Student Type	1	6	4	3	4	2	1	0	0	21
Student Testing	0	0	0	1	0	0	1	0	0	2
Total Issues	4	20	20	16	9	5	9	8	5	96
Involvement Rank	9	1.5	1.5	3	4.5	7.5	4.5	6	7.5	NA

Source: Based on Regional Lab Policy Issues Agenda, 2/1/88
*Level 3 = A short-term or one-time state policy issue
Level 4 = An on-going Task 3 state policy issue

instruction, school personnel, and student types. No attention is given to "buildings and facilities," and practically none to "school finance" and "student testing." Both of the latter are perennial state issues, but evidently labs are not perceived as resources for their analysis.

The labs vary markedly in number of issues addressed. Both FWL and McREL address twenty different issues, FWL in five domains and McREL in six. At the other end of the spectrum, AEL is involved in only four issues in three domains, and NWREL and SEIL in five each. Only a small association exists between the number of issues addressed and budget level (see also Table 3).

National Coordination.

General. Because all labs have Task 3 scopes, state policy is a natural area in which to expect cross-lab coordination. In addition, important national resources can be accessed by labs. A state policy theme was indeed identified under Task 5. Some national coordination takes place in connection with this theme, and some outside of it.

Labs are also expected to coordinate their work with research centers supported by OERI. In this case there is a Center for Policy Research in Education (CPRE) located at Rutgers. While several labs have worked with CPRE to organize regional policy forums, it is not clear that they have made use of research, conceptualization, or other substantive results coming from the Center.

In organizing state policy forums a number of the labs have worked with SEPS (State Education Policy Seminars) established jointly in 30 states by the Education Commission of the States (ECS) and the Institute for Education Leadership (IEL).

Labs also participate in the national scene by reporting their work at the meetings of national professional associations. Several labs provided input of state policy data at the request of the National Governors' Association.

Task 5 State Policy Theme. Each lab was required to set aside funds under Task 5 for collaborative work among the labs and with centers, national organizations with state policy interests, and OERI. A theme for collaborative work in state policy was mandated in the RFP by establishing a network of Task 3 project directors. This group has met several times in the first two years and the theme will be continued in years three through five . SEIL is the lead lab for this theme, and all labs are participating to some degree. Several national organizations have been represented at meetings of the network.

Two objectives were established for this theme:

- o To provide a means for exchanging policy resources and products
- o To enhance existing policy support systems with an emphasis on increasing the capacity of labs as well as state and national agencies and support groups, by focusing on six study questions:
  - * What are the appropriate ways to do policy analysis?
  - * How do we assess and enhance capacity for policy analysis with states?
  - * What is the nature of data systems to assess and support policy development?
  - * Can we develop a taxonomy of underlying policy mechanisms?
  - * How can support groups relate to policymakers?
  - * How do we develop new strategies of policy implementation?

From the documentation available it is not possible to quantify the amount of collaborative work done under this theme. Scattered references are made to one lab providing a speaker at another lab's policy forum or making policy analysis papers available. It is not clear whether any policy analyses were done collaboratively.

The distinction between doing and capacity-building has already been introduced. The principal activities accomplished, and the main thrust of the objectives and "study questions" that guide this task theme, are intended to increase the capacity of the labs themselves and of their collaborators and clients to undertake a more systematic and inquiry-based policy analysis function. William Dunn's aforementioned paper (1986) provides a conceptual framework for policy inquiry. A second document by Dunn in collaboration with Richard E. Basom, Jr. and Carl D. Frantz and sponsored by NE/I is the Educational Policy Development Training Handbook. As of the end of the second contract year only an outline and one prototype section had been completed.

One other noteworthy accomplishment has been the establishment of a "policy issues matrix" to describe the involvement of each lab (all programs) in selected policy issues. This database was used above for the analysis of policy domains.

Policy Assistance Configurations

The fact that it was not feasible to use the project or activity as the unit of analysis and our method of highlighting the "primary" clients, etc. has obscured the full range of each lab's activity. It will be useful here to provide a thumbnail description of each lab Task 3 program to get a better feel for total programs.

Level of Effort. Before looking at the individual program configurations, let us introduce Table 9, which shows each lab's budget for Task 3 in 1986 and 1987. The RFP specified that each lab should devote 10 to 20 percent of it's program effort (i.e., Tasks 2-5) to this work. Task 3 effort expected to be secondary to the effort for Tasks 2 and 4.

For the most part, the effort programmed for Task 3 was within the guidelines and on the high side of the range. RBS appears to have committed resources well above the guideline level, but the figure may include some funds for Task 2.

Table 9. Laboratory Level of Effort for Task 3, FY 1986-87, and Regional R&D Organizational Resources.

		Fiscal Year 1986			Fiscal Year 1987			R&D Orgs	
Lab	No. States	Amount	Amount Per State	Task 3 %*	Amount	Amount Per State	Task 3 %*	No. **	Rank
AEL	4	132,597	33,149	11	142,662	35,666	13	125	8
FWL	4	353,400	88,350	18	352,745	88,186	20	303	3
McREL	7	235,838	33,691	21	269,071	38,439	21	176	7
NCREL	7	179,678	25,668	16	89,700	12,814	10	552	1
NE/I	9	236,457	26,273	19	269,575	29,953	18	408	2
NWREL	7	349,662	49,952	13	275,080	39,297	10	114	9
RBS	5	583,375	116,675	28	583,375	116,675	28	291	4
SEDL	5	194,468	38,894	14	272,975	54,595	20	180	6
SEIL	6	120,913	20,152	19	123,024	20,504	15	271	5
TOTAL	54	2,386,388	44,192	19	2,378,207	44,041	17	2,420	NA

*Percent of program funds, Tasks 2-5
**Source: Frankel et al 1979

Just what can be accomplished under this task is a function of both the absolute amount of money available and the number of states to be accommodated. In 1987 the absolute amounts ranged from $120,000 (SEIL) to $583,375 (RBS). The number of states or other jurisdictions served varied from four (AEL and FWL)) to nine (NE/I). On a per-state basis, the range is from $20,504 (SEIL) to $116,675 (RBS). The range for percentage of program budget is much smaller, from 11.4% (AEL) to 27.8% (RBS). Of course there is no requirement that the same amount be spent on each state, and some activities are region-wide and not state-specific.

Between 1986 and 1987 SEDL made a significant increase in its Task 3 allocation as its thematic work reached its final made by NCREL and NWREL. Rationales for these changes are not available.

Regional R&D Resources. One would expect that lab plans for state policy assistance would be tempered by the availability of resources for policy analysis within state government and in non-governmental organizations. Table 9 contains a rough indication of the distribution of R&D resource organizations by region as they existed in 1981. (While the numbers may have been different in 1986-87, the rank order by region was probably about the same.)

NCREL is a new lab still in a developmental stage with a small budget and required to serve seven states. NCREL spent only $25,668 per state in 1986, and even this was reduced to $12,814 in 1987. On the other hand, the North Central region ranks first in the number of R&D organizations in the region. These circumstances may account for the focus of the NCREL Task 3 program on state forums that include outside experts.

By contrast, NWREL ranks lowest in regional R&D resources and has the largest total budget, but in allocation of funds to Task 3 it ranks third on both total and per-state bases.

Further comments about level of effort and R&D resources will be made in the description of each lab's Task 3 "configuration" that follows.

AEL. AEL is in the lower end of the range for both total dollars available for Task 3 ($132,597 and $143,662) and in percentage of total budget allocated to this task (slightly over nine percent). However, because only four states are in the region, the amount per state is close to the average (about $35,000 in each year).

The Task 3 program, the Policy and Planning Center, is a reflection of AEL's organizational design that establishes structural interconnections between the lab and major state level constituencies. Focusing on Task 3 is potentially misleading, for Tasks 2, 3, and 4 are all intended to assist different groups of state-level decisionmakers.

AEL begins by noting that the educational R&D community is marginal to the world of educational practice. The lab is viewed as a linkage organization designed to assist in bridging the "theory-practice gap." They are aware, however, of the research literature failure of decisionmakers to use research-based knowledge and the inadequacies of strategies that rely solely on information. Their intent is to "maximize long-term involvement by state officials in activities that should help them develop a more inquiry-based approach to decisionmaking and, at the same time, support their efforts at inquiry with easily accessible and relevant information" (AEL Proposal 1985, p. 125).

The program is organized into five activities. The first is designed to create a forum of the region's CSSOs. The chiefs, all members of the AEL Board, are also constituted as the Council on Policy and Planning. As such, they have a dual role, first as a committee of the board with special responsibilities for reviewing and making recommendations on the lab program, and second as a forum for the discussion of regional policy issues. This committee meets before the board's quarterly meetings. The first role has tended to overshadow the second, and in the second contract year only two Task 3 forums were held. A formula has evolved for rotating the meetings among the four states and inviting the host chief to select the policy topic. He/she also has the option of inviting a variety of state-level policymakers to the forum. The lab assists by preparing special information packets and policy briefs and commissioning papers by outside experts.

The second activity is an annual symposium of state government decisionmakers. The topic for year two was "The Competitive Edge: Preparing Youth for Jobs of the Future." The 70 people attending included legislators, state board members, governors' staff, state voc ed advisory council members, and business and industry representatives. In the future the annual symposium will double as one of the chief's forums.

The third activity is intended to monitor and report on selected educational trends in the region, but it is not clear that any work was actually accomplished under this activity. During the second year a design for accomplishing this task in FY 1988-90 was produced under sub-contract by the Virginia Policy Analysis Center at the University of Virginia.

The fourth activity is to provide a policy information search, retrieval, and synthesis service, including linkages with national and regional organizations, for the chiefs and other government officials. Eight issues papers have been published. For 1988-90 activities three and four have been modified to de-emphasize search and retrieval services and to put greater effort into issuance of trend and policy issues papers.

The fifth activity is to prepare "Policy Briefs" as inserts for AEL's newsletter, The Link. Four such inserts were prepared in the second contract year.

In sum, the AEL program is designed to increase the inquiry orientation of the chiefs primarily, and other state leaders secondarily, by involving them in meetings for the discussion of policy issues of their own choosing and providing information and analysis resources to support these activities.

FWL. Although the Far West proposal describes a system of matrix management that has a Task 3 coordinator providing oversight for activities found in each of four programs, the Task 3 work reported for the second year seems to reflect only that labeled "State-Level Policy Support" under the Policy Support Services Program.

FWL spends more than $350,000 per year for Task 3. With only four states in its region, this amounts to roughly $88,000 per state. However, it is a heterogeneous region. California is a very large, resource-rich state, while the other three states have small populations and much smaller resources. The program is even larger that these figures suggest because the laboratory has undertaken several significant non-federal contracts consistent with Task 3 objectives.

The FWL program is notable for its employment of field agents in each state. These agents have a variety of responsibilities: they collect needs-sensing and trend information, update lists of key actors, help organize SEP seminars, prepare state-oriented inserts to policy briefs, and prepare white papers (personal communication from Paul Hood).

Probably the dominant activity for FWL is preparing policy briefs and issue papers, four of which were prepared in 1987. But, it also engaged in direct consultation with state-level policymakers in a relatively rare instance of involvement in the legislative process: it worked with the California Senate Appropriations Committee to develop an omnibus school reform measure. The lab also worked with the state directors of planning and program evaluation to explore the establishment of a regional database, an idea that had to be dropped for lack of funds. In the area of policy research and evaluation, the lab studied the Utah Career Ladder System and analyzed the link between teacher recruitment and retention and a California teacher information system.

McREL. McREL allocates a significant portion of its budget to Task 3 (20-21%), but this amounts to only $33-38,000 per state, on the average. The program is noteworthy for its focus on the theory and methodology of strategic planning. Their assessment of state education systems in the region had identified a number of deficiencies (Proposal pp. III-Task 3, p 1-2):

- Lack of a comprehensive database to develop and assess school improvement and restructuring proposals
- Lack of a coordinated planning and evaluation mechanism

- Lack of policy analysis
- Lack of opportunities for state leaders to network and to get to know the perspectives of other leaders
- Lack of opportunities for training and development
- Lack of informational models for restructuring education systems

Further, their examination of the context of the region's educational systems had revealed a major shift from an industrial to an information-based economy and focused on the restructuring of education to adapt to that shift.

Given this analysis, McREL adopted a strategy for Task 3 that emphasized a capacity-building approach to help the state education systems use strategic planning to adapt to environmental press. Five sub-tasks in the 1985 proposal had been consolidated into three by the second year.

First, in response to the lack of needed information organized on a state and regional basis, the lab has organized and developed a variety of databases, including state files, educational news publications, education influence publications, and statistical publications. These databases can be searched through the use of key words. The lab publishes and distributes reports based on the databases and commissions related policy issue papers and a periodical, Policy Notes.

Second, the lab organizes an annual policy conference. One, held in 1987, invited 30 state leaders to hear national experts on issues that appeared to be strategic rather than educational issues more narrowly defined, i.e., human resource development, state economic development, school finance, and school/business partnerships.

Third, technical assistance is provided to state (and local) education policymakers. The lab has assisted North Dakota, Kansas, and Nebraska to develop state strategic plans and provided planning assistance to numerous LEAs.

NCREL. In its 1985 proposal (the lab's first year, but a year before the time frame under review) the lab had proposed an information and networking strategy designed to provide useful information to legislatures, SEAs, and local school districts. They planned three types of meetings in each state each year: legislative forums, SEA seminars, and policy implementation institutes, which would have required 21 meetings a year in its seven-state region.

However, only $179,678 was allocated to Task 3 in 1986, or $25,668 per state. In 1987 this amount was cut in half ($89,700 total, or $12,814 per state). By 1987 the ambitious schedule of meetings originally planned had been reduced to one state policy seminar in each state plus a regional policy workshop sponsored jointly with the Center for Policy Research in Education. The meetings featured both papers prepared by experts and interaction among various stakeholders. Activities involving database development and services, technical assistance, or training do not seem to have been used for this task.

NE/I. Originally the lab defined its Task 3 program as the theme for Public Policy for School Improvement, plus policy-relevant activities under three other themes, and distinguished between regional and state-specific projects. In the annual and assessment reports it is difficult to pull this entire set together, and it is not clear whether the budget allocation refers to the entire set or only the Public Policy Theme. NE/I makes an average commitment to Task 3 in terms of budget percentage (17.9% and 18.2%), but given nine jurisdictions, the amount per unit is near the bottom of the range. Consistent with its decentralized structure, the lab emphasizes a linkage strategy using state-level forums, although some regional meetings are sponsored.

NWREL. The Northwest Lab has a relatively large budget, but must divide its attention among seven states and territories. It made a significant reduction in commitment to Task 3 between 1986 and 1987 (see Table 9). No rationale for the reduction seems to be available.

All of the states in the Northwest region are engaged in the implementation of long range plans designed to achieve higher levels of excellence. NWREL`s Task 3 activities are matrixed across the Lab's organizational units. The dominant theme of these activities seems to be the improvement of database management and use through development of specific packages and products, and related technical assistance. The accomplishments reported for 1987 include development of a special regional database on at-risk youth; presentations on specific policy issues at meetings of regional groups; development of methodologies for developing, managing, and using databases and profile information at different decision levels; development of an expanded form of the School Improvement Program's School Profiling System and a related workshop package; and provision of consultation and technical assistance to state agencies, school districts, and other NWREL staff. It is not clear from the documentation whether the Task 3 effort is targeted at the state level or whether it is aimed at assisting local districts use database management for implementing state plans. If the latter, it would not seem to be consistent with the objectives of Task 3.

RBS. RBS stands out in its heavy commitment to Task 3: over $583,000 in each year, 28% of its budget, and over $116,000 per state. (In some documents it appears that the State Leadership Assistance Project is coterminous with Task 3, while in others it seems to include some activities from other tasks.)

The RBS approach to Task 3 is unique in that it establishes a specific contractual relationship between the lab and each state. For each state the lab assigns a senior staff member to serve as state coordinator. In turn each CSSO selects a senior state-level decisionmaker to serve as the RBS state liaison person. These two develop and modify, as necessary, a written agreement describing how RBS will work with state-level decisionmakers and how they will participate in cross-state activities.

Also unique is the lab's emphasis on the policy implementation and evaluation stages. Although the lab often provides planning assistance, it is generally the planning of implementation or evaluation activities vis a vis the state educational improvement plan. However, some assistance is provided each state in identifying new policy issues and analyzing policy options. Although the emphasis is clearly on working with each jurisdiction separately, it sponsors at least one regional conference.

A broad range of types of services is provided including, in the RBS terminology, planning, planning assistance, resource book revision, training, technical assistance, evaluation, information, research, instrument and procedure development, workshop development, and conference management. The overall image is one of gap-filling within state school improvement programs.

SEDL. Between 1986 and 1987 SEDL made a significant increase in its commitment to Task 3 as its themes reached the dissemination state (see Table 9). The lab's posture in Task 3 is noteworthy for its strong desire to avoid taking sides in political battles involving conflicting interests. It specifically eschews the role of regional problem solver and opts for a more purely informational role. Further, Task 3 is not an independent program; rather, in the matrixed SEDL system, Task 3 activities represent the targeted dissemination activities of the several themes around which SEDL's programs are organized. The three primary tactics are preparation of briefing papers, forums for state-level decisionmakers, and one-on-one briefings. (An electronic bulletin board was tested but later abandoned.) SEDL emphasizes a state-by-state orientation, although some regional meetings are held.

SEDL's self-assessment found this program to be unnecessarily rigid and non-responsive to many emerging needs and issues. Consequently, in the plan for 1988-90 this profile is substantially changed. A new theme called ED-AIDE is identified that takes full responsibility for Task 3. It is designed to identify and monitor emerging issues and to anticipate and meet information needs of decision- and policymakers, and to respond with available information to requests that require quick turnaround. It does continue to assist the theme programs in working with state decisionmakers. This reorientation is an example of the constructive use of self-assessment to make program changes.

SEIL. SEIL has a relatively small budget and makes a relatively weak commitment to Task 3. Consequently it stands at or near the bottom of the range for level of effort. Its $21,377 per state (8.5% of budget) in 1986 moved up to only $24,369 per state (8.8% of budget) in 1987.

Educational reform is the dominant theme of the SEIL Task 3 program. In its first two years the lab established and maintained a file of state reform initiatives and a system for monitoring them. It also operated a system of issue identification through environmental scanning of publications and surveys of educational personnel. It held a regional policy forum and commissioned some policy analyses. SEIL is also the lead lab for the Task 5 theme on state policy under which an electronic database of policy issues addressed by each lab is maintained. This program reflects the SEIL style of sub-contracting some program elements.

Comments on Task 3

A wide variety of linkage strategies were used in assisting state-level decisionmakers. While there was some collaboration with national organizations, most work was intra-region. Some labs were highly focused on the chiefs and SEAs, while others worked with a broader cross-section of state-level persons and organizations.

A wide range if improvement strategies was used, with all labs providing policy analyses and/or briefs. With the exception of RBS, all concentrated on the earlier stages of the policy process.

Of eight broad policy domains, the ones in which most lab work was done were curriculum and instruction, organization and governance, school personnel, and assisting special types of students.

At the risk of over-simplification, the dominant role of each lab in its Task 3 program can be characterized as follows:

- AEL: resource for policy information and analysis for CSSOs and SEAs plus organizer of regional symposia.
- FWL: resource for policy research, evaluation, and analysis
- McREL: builder of SEA and LEA capacity for using strategic planning and other methods for the restructuring of education
- NCREL: conference organizer for state policy forums
- NE/I: convener and facilitator of state policy forums
- NWREL: resource for development of database management systems for use by local systems in implementing state school improvement programs

- RBS: gap-filler in SEA efforts to implement school improvement programs
- SEDL: dissemination arm of lab thematic programs targeted at state government personnel
- SEIL: monitor of educational reform issues and resource for policy analysis

These represent substantially different approaches to bringing an inquiry orientation to bear on the state policy process. Whether they have resulted from careful considerations of strategic options, the style preferences of lab personnel, or highly adaptive responses to variations in regional needs and resources is difficult to say.

Review of these programs in the future might consider the following factors:

- The balance between information and policy analysis strategies
- The balance between capacity building and doing strategies
- The balance between meeting the needs of SEAs and those of other state-level decisionmakers
- The balance between state-by-state activities and regional approaches
- The balance between proactive and reactive efforts
- The balance among different policy stages
- Whether the program serves state-level decisionmakers local districts

CHAPTER V

PROVIDING R&D BASED SERVICES FOR THE IMPROVEMENT OF EDUCATION WITH AND THROUGH EXISTING ORGANIZATIONS: TASKS 2 AND 4

Federal Specifications

According to the RFP, the core of lab work was in Tasks 2 and 4. The two are treated together here because most labs found it difficult to organize their work according to this task structure. They preferred instead to define their programs in terms of some priority need and then identify both Task 2 and Task 4 activities in relation to that need. Some, however, labs did identify separate activities for these two tasks.

Given the importance of Tasks 2 and 4, a review of their characteristics as defined by the RFP is in order.

Task 2 simply stated that labs should "work with and through existing organizations to improve schools and classrooms" (p. 21). While some provision was made for working directly with schools and school districts in exceptional cases, it was clear that an indirect strategy for school improvement was mandated as the dominant linkage strategy. This became known as the "with and through" task.

The rationale for requiring an indirect strategy was quite straightforward: lab resources would be very limited and all regions had at least some important school improvement organizations already in existence. Therefore some leverage in achieving school improvement could be achieved by collaborating in various ways with other organizations in the regional infrastructure.

Unfortunately, there were also some countervailing considerations, the most important being the loosely coupled nature of the KPU configuration which makes impact at school and classroom levels problematic. In addition, the willingness of other organizations to work with labs has to be constantly tested and negotiated. Finally, even where improvement is achieved, the lab contribution might be invisible or difficult to separate from others' contributions.

This dilemma permeates everything that labs do and, indeed, it might be said that the central challenge faced by all labs is that of developing a linkage strategy to deal adequately with these problems.

Three examples of appropriate activities were cited (RFP pp. 21-22):

- Building and strengthening organizational support systems for improvement.
- Engaging in cooperative local improvement initiatives with other service improvement organizations.
- Broadly disseminating the results of research...to the spectrum of audiences interested in improving schools and classrooms.

Task 4 required the labs to "work to create research and development based resources for school improvement" (p. 25). Despite ambiguity introduced by the term "based," the text made clear that it was legitimate for labs to do research and development as well as to compile R&D based resources. However, the labs were encouraged to undertake only short term research and to leverage their resources by taking part in collaborative projects. An issue to be raised (but, alas, not resolved) is whether the popular tactic of collecting "promising practices" and disseminating them is in any sense an R&D-based tactic rather than a craft activity. A related problem is that craft knowledge, which has its origin in experience rather than disciplined inquiry, seems to be accorded the same status by the labs as R&D-based knowledge although it is not mentioned specifically in the RFP.

Note that Task 2 corresponds to the linkage strategy and Task 4 corresponds to the improvement strategy. According to the formulation presented here, all lab program activities require both a linkage strategy and an improvement strategy. So it is not surprising that labs found it difficult to divide their projects into Task 2 and Task 4 categories.

Level of Effort

The centrality of these two tasks was underscored by the guideline that Task 2 was to constitute from 40 to 55 percent of the program budget, and Task 4 from 20 to 35 percent, or from 60 to 80 percent for the combined tasks. (One cannot add the two upper limits to 90 percent because Tasks 3 and 5 were expected to take 20 percent.) The actual allocation of effort for the two tasks in FY 1987 is shown in Table 10.

Generally the labs allocated between two-thirds and three-quarters of their program budgets to the combined tasks. On average, 44 percent went to Task 2 and 27 percent to Task 4,

Table 10. Amount and Percent Budgeted for Tasks 2 and 4, FY 1987

	----Amount Budgeted----			Percent of Prog Budget*		
Lab	Task 2	Task 4	Total	Task 2	Task 4	Total
AEL	503,667	374,182	877,849	44.7	33.2	78.0
FWL	809,220	421,940	1,231,160	44.9	23.4	68.3
McREL	544,095	308,416	852,511	41.9	23.8	65.7
NCREL	307,759	372,243	680,002	35.1	42.4	77.5
NE/I	724,618	321,033	1,045,651	48.3	21.4	69.7
NWREL	1,401,549	837,028	2,238,577	50.0	29.8	79.8
RBS	770,058	513,370	1,283,428	36.7	24.4	61.1
SEDL	630,697	320,472	951,169	46.2	23.5	69.7
SEIL	377,544	231,817	609,361	46.8	28.7	75.5
ALL	6,069,207	3,700,501	9,769,708	44.4	27.0	71.4

*Tasks 2-5 make up the program budget.

indicating an emphasis on the linkage strategy. NCREL is an exception to this pattern, having allocated 42.4 percent to Task 4 and only 35.1 percent to Task 2. This emphasis on creating R&D-based resources may seem surprising considering that its region has more R&D and service improvement organizations than any other region (see Table 9, Chapter IV); but the lab tends to create these resources by subcontract and other arrangements with outside agencies.

Analytic Approach

As stated above, every lab program has three dimensions: a linkage strategy, an improvement strategy, and a substantive focus. Task 2 essentially defines a linkage strategy (work with and through other organizations), but lab programs listed under Task 2 have the other two dimensions as well. Similarly, Task 4 defines an improvement strategy (knowledge-based resources), but lab Task 4 programs also have the other two dimensions. Many labs structured their programs in terms of substantive themes (our third dimension), then matrixed the activities between the other two dimensions.

While determining which of the three dimensions is used as the primary identification of a program may be somewhat arbitrary, it is probably based on which of the three is chosen as the point of departure in the planning process. If, for example, working with a particular set of partners is the starting point, this linkage strategy becomes the program's primary identification. Planning then is generally done jointly to select a substantive focus and an improvement strategy and to further refine the mode of linkage. If, on the other hand, the lab starts with the need to create certain R&D based resources in a substantive area, it must devise a linkage strategy for bringing these resources to bear on the problem.

Our task would have been greatly simplified if it had been possible to use the project as the unit of analysis and to describe all lab work in terms of these projects. However, as noted above, there are a number of difficulties in doing this. Some lab activities are continuing open-ended services that do not lend themselves to a project structure. Some define their programs in terms of abstract functions rather than programs and projects (e.g., McREL Subtask 2.3: "Network and Broker People and Resources"; NCREL Task 4, "Extend Pool of Available R&D Information"). Some labs start with a hierarchical structure of programs, projects, and activities, but make only partial use of that structure in their annual reports (e.g., FWL).

The inability to create an exhaustive database of lab projects means that we cannot perform quantitative and comprehensive analyses of lab work by task. For example, if we attempted to analyze work done with intermediate service agencies under Task 2, some of labs would undoubtedly rush forward to say, "Your analysis is incomplete because it doesn't show our work with intermediate agencies under Task 4." (In Chapter IV we chose to ignore this problem, knowing that not all work with state policymakers was found under Task 3.)

As a result we are eschewing any sophisticated quantitative analyses in favor of searching for an understanding of lab strategies more qualitatively. The method will vary somewhat from section to section. The first analysis is of programs designed around a particular need or policy issue (i.e., the educational focus in our three-part schema). The example chosen is programs for improving administrative leadership. First, a set of programs addressing this problem will be identified and described briefly. Then issues such as the following will be addressed:

- o Are there variations in how the problem of improving administrative leadership is defined?
- o What knowledge base is used?
- o What linkage strategies are employed?
- o What improvement strategies are selected?

The following sections will explore new typologies of interorganizational collectivities, research approaches, and development/demonstration designs for programs for improving administrative leadership.

Improving Administrative Leadership

We begin with a set of programs that use a substantive focus, improving administrative leadership, as the point of entry. At this broad level seven of the nine labs identify a need and define one or more programs, projects, or activities.* A listing of the relevant work units is found in Appendix B.

There are a number of differences in the structure of these work units. Some are single-level and others multi-level. In some cases the highest level is a major lab program, in others it is a single project.

Profiles of work designs for administrative leadership for the seven labs working in this area are shown in Table 11. Following is an examination of each design feature by looking across the table horizontally. Those who want to focus on the overall strategy for any lab program/project should look down the columns.

Problem Definition

The substantive focus of the work represents one of our three strategic dimensions. The seven labs represented in Table 11 have undertaken work in the general area we have called "administrative leadership." In each case the work has been justified as emerging

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*McREL planned but later dropped its Administrator Leadership Program. It did provide assistance to applicants for Leadership in Educational Administration Development (LEAD) Center grants. While NCREL's Professional Development Program was focused on teachers, it also has implications for administrators.

Table 11. Profile of Lab Programs Focused on Improving Administrative Leadership*

Design Feature	AEL	FWL	McREL	NE/I	NWREL	RBS	SEDL	SEIL
PROGRAM/PROJECT NAME	SCHOOL ADMINISTRATION AND GOVERNANCE	SUPPORT FOR SCHOOL LEVEL LEADERSHIP	DEVELOP ADMINISTRATOR LEADERSHIP PROGRAM	LEADERSHIP FOR SCHOOL IMPROVEMENT	RURAL NETWORKING FOR LEADERSHIP	COOPERATIVE SCHOOL IMPR/ ORG EFFECT/ MGMT DEVEL	IMPROVEMENT OF TEACHER & ADM PERFORMANCE	IMPROVING LEADERSHIP SKILLS OF SCH PRINCIPALS
A. PROBLEM DEFINITION	A. PROBLEM DEFINITION How to build capacity for inquiry in schools	A. PROBLEM DEFINITION Eff schs research raises stds for principals Isolation of principal Failure of certification programs to keep pace	A. PROBLEM DEFINITION 50% of sch adms will retire in 5 yrs. Need something more than effective schools lit	A. PROBLEM DEFINITION How to make research available for use :	A. PROBLEM DEFINITION Rural isolation Leadership is a function of multiple roles	A. PROBLEM DEFINITION How create sch culture of high effort levels How to implem tech and org improvements	A. PROBLEM DEFINITION How to implement state mandated performance assessment systems (How do principals implement teacher systems?	A. PROBLEM DEFINITION How to build on and network existing resources
B. IMPROVEMENT STRATEGY 1. Knowledge Base a. Research	B. IMPROVEMENT STRATEGY 1. Knowledge Base a. Effective schools Use of computer for management School home communications	B. IMPROVEMENT STRATEGY 1. Knowledge Base a. Effective schools Pr as instr leader	B. IMPROVEMENT STRATEGY 1. Knowledge Base 1. Sergiovanni's 5 forces nical, human, educational, symbolic, & cultural	B. IMPROVEMENT STRATEGY 1. Knowledge Base a. School improvement Effective schools	B. IMPROVEMENT STRATEGY 1. Knowledge Base a. Ed leadership Networking Collaboration Effective leadership Effective management Effective org dev	B. IMPROVEMENT STRATEGY 1. Knowledge Base a. Effective schools Seven enabling org factors in Clark et al 84	B. IMPROVEMENT STRATEGY 1. Knowledge Base a.	B. IMPROVEMENT STRATEGY 1. Knowledge Base a. Review literature on mgmt & leadership skill of school principals Problem analysis lit
b. Products	b. Guidelines for assessing secondary remedial software	b. Peer Assisted Leadership (PAL)	b.	b. Identify resources for sch impr leadership	b.	b. Strategic planning Org diagnosis Motivation of staff Design of staff dev Prep intern impr teams Curriculum management	b.	b. TBD: training modules based on lit review
c. Practices	c. Practices developed in RS, RDx, and RDIS	c. Career ladder options	c.	c.	c.	c. Exemplary training	c. Existing perf assess	c. Commercial training
2. Info Services a. Database development b. Reports c. Lab newsletter d Newsletter inserts e. Search & retrieval	2. Info Services Topical reports, lab newsletter, inserts in prof assoc newsletters, search and retrieval	2. Info Services	2. Info Services	2. Info Services	2. Info Services	2. Info Services	2. Info Services Develop database and prepare reports etc. from it	2. Info Services
3. Knowledge Production a. Research b. Evaluation c. Policy studies d. Development	3. Knowledge Production Study group topical reports	3. Knowledge Production Examine special topics in school leadership Dev summer leadersh institutes	3. Knowledge Production Review of models & theories; conceptual outline; modules	3. Knowledge Production Study cent off leadersh Research on teachers as school impr leaders Dev trng materials for sch network personnel	3. Knowledge Production Design training materials for regional agency and network personnel	3. Knowledge Production Identify & rev exemplary programs & materials Plan & design training materials	3. Knowledge Production	3 Knowledge Production Identify research needs Synthesize research Compile guide to trng materials

(This table is continued on the next page.)

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Table 11. Profile of Lab Programs Focused on Improving Administrative Leadership* (continued)

Design Feature	AEL	FWL	McREL	NE/I	NWREL	RBS	SEDL	SEIL
PROGRAM/PROJECT NAME	SCHOOL ADMINISTRATION AND GOVERNANCE	SUPPORT FOR SCHOOL LEVEL LEADERSHIP	DEVELOP ADMINISTRATOR LEADERSHIP PROGRAM	LEADERSHIP FOR SCHOOL IMPROVEMENT	RURAL NETWORKING FOR LEADERSHIP	COOPERATIVE SCHOOL IMPR/ ORG EFFECT/ MGMT DEVEL	IMPROVEMENT OF TEACHER & ADM PERFORMANCE	IMPROVING LEADERSHIP SKILLS OF SCH PRINCIPALS
C. LINKAGE STRATEGY 1. Knowledge Base a. Research:	C. LINKAGE STRATEGY 1. Knowledge Base a. UDPA study Rogers' adoption stages	C. LINKAGE STRATEGY 1. Knowledge Base a. Configurational persp Linking agents, agencie Organizational change Models of field-based inquiry	C. LINKAGE STRATEGY 1. Knowledge Base a	C. LINKAGE STRATEGY 1. Knowledge Base a. GDPA study DESSI study	C. LINKAGE STRATEGY 1. Knowledge Base a.	C. LINKAGE STRATEGY 1. Knowledge Base a.	C. LINKAGE STRATEGY 1. Knowledge Base a.	C. LINKAGE STRATEGY 1. Knowledge Base a. Open systems theory Contingency theory
b. Ordinary knowledge	b. Knowledge of region	b.	b.	b.	b.	b.	b.	b.
c. Products: 1. Extent 2. To be developed	c.	c. Ex: refine Peer Assis Leadership (PAL) TBD: Trainer of trainers capability TBD: Summer leadersh institutes		c. Ext: Pub directory of R&D resources for school improvement leadership TBD: Design network & collaborative models TBD: training processe	c. TBD: Processes to prepare reg agencies;.. for training school network personnel	c. TBD: Academy on planned change TBD: Leadership seminar	c.	c. PAL (see FWL) Concerns based Adoptio Lab training modules*
d. Practices: 1. Extent 2. To be developed	d. Extant: RDx, RS, RDIS	d. Career ladder options		d. TBD: Action guide fo school improvement	d.	d.	d. Regional practices: Performance assessment systems	d .
2. Interorganizational Arrangements a. Collaborators i. National ii. Regional a. SEA b. ISA c. LEA d. IHE e. Other	2. Interorganizational Arrangements a. Collaborators i. Labs/centers ii. State prof assoc's for adms, sch bds	2. Interorganizational Arrangements a. Collaborators i. Labs/centers ii. U. Ariz, Ariz SAA Principals academies Ad hoc focused study groups	2. Interorganizational Arrangements a. Collaborators	2. Interorganizational Arrangements a. Collaborators i. Labs/centers ;ii. SIOs: SEAs, IHEs, adms in SDOs	2. Interorganizational Arrangements a. Collaborators i. ii. Three SIOs to be selected	2. Interorganizational Arrangements a. Collaborators i. ii.	3. Interorganizational Arrangements a. Collaborators i. ii.	2. Interorganizational Arrangements a. Collaborators i. Labs/centers ii. SEAs, IHEs, ISAs, dist level principals training programs Use regional consultants & NC Sci & Tech Resear Center
b. Clients i. Primary ii. Range iii. Type	b. Clients i. Administrators ii. Broad iii. Individuals	b. Clients i. Principals ii. Narrow iii. Individuals	b. Clients	b. Clients i. SIOs ii. Medium iii. Princip academies by IHEs and others	b. Clients i. SIOs ii. Broad iii. SEAs and IHEs	b. Clients i. SDOs = SEAs & central offices of large LEAs	b. Clients i. State-level decisionmakers	b. Clients Network of directors o principalship academie plus LEAD centers
c. Interpretation of "with and through" i. SIO is client ii. SDO is client a. SIO is collaborato b. SIO is sponsor c. No SIO involved	c. Interpretation of "with and through" Adms etc. are clients, prof assocs provide access	c. Interpretation of "with and through" Mixed; develop and test products with SDOs, then help SIOs implement	c. Interpretation of "with and through"	c. Interpretation of "with and through" Primarily SIOs	c. Interpretation of "with and through" SIOs are clients. Products tested & training supervised in schools	c. Interpretation of "with and through" LEA teams & networks of them; Big SDOs as SIOs	c. Interpretation of "with and through" Same as Task 3: diss to State-level DMs & those resp for training	c. Interpretation of "with and through" SIOs are clients
3. Communication a. Approach b. Services i. Info services ii. Tech assist. iii. Staff dev a. Train trainers b. Train staff iv. Demonstration v. Network creation	3. Communication a. State (1 reg conf) b. 1,2,4: Info services Technical assist workshops etc. School Excellence Sites (SES)	3. Communication a. State approach b. 2,3: Train trainers TA on career ladder options Implement summer institutes in Ariz	3. Communication	3. Communication a. State approach b. 1,5: Info fr DB of materials materials, people, programs & practics The School Improvement Leadership Network	3. Communication a. State approach b. 3,4,5: Demo:Superv plan & imple trng of sch net personn Train support agency personnel Build capac of support agencies to serve rural districts	3. Communication a. State approach b. 3,5: Academy of planned chg Leaderhship seminars	3. Communication a. State approach b. 1: Disseminate practices	3. Communication a. Regional and state b. 1,2,3,5: Diss info & material TA to LEAD centers SD through network Form network

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from the need assessment process, but that does not mean that the labs are working on identical problems. Under this broad rubric is considerable room for variation in how the problem is defined at more specific levels.

There is also tremendous variation in the amount of detail available on problem definition (as well as other program design dimensions). Some labs have prepared special papers (not examined in this review), while others provide only a paragraph or two.

Generally, there are several broad themes:

- Local administrators have a great responsibility for implementing changes resulting from the reform movement and reform initiatives of the states.
- There are important bodies of research on school improvement, instructional leadership, etc., that administrators need to become familiar with.
- Schools and their leaders need to develop a culture of inquiry to use knowledge-based resources in their attempts to improve schools.
- School administrators are isolated, and new structures are needed that put them in communication with their peers and enable them to access knowledge-based resources for school improvement.
- It is a mistake to focus exclusively on the principal's role; leadership is provided by a number of roles at the school and central office levels.

These are not mutually exclusive problem definitions and might easily be strung together as one complex rationale. However, the tendency is to stress one or a few of these rationales.

Improvement Strategy

The use of knowledge-based strategies is a given for labs. (Money and regulation are alternatives available to governmental entities. See Mason 1982.) The components of knowledge-based improvement strategies are the knowledge base, information services, and knowledge production.

Knowledge Base. There are distinct differences in the knowledge bases used for the improvement strategy. (Note that knowledge bases are also used for the linkage strategy. See below.) Here the focus is on the nature of the knowledge be transferred. First is a choice to be made among research knowledge, knowledge in the form of developed products, and that represented by existing practices or some other form of craft knowledge.

The main bodies of research knowledge mentioned are those on effective schools and leadership. Some labs provide a discussion of one or more of these knowledge bases; some list a number of the generalizations that have emerged, and others merely name the knowledge base used. At the activity level some specific bodies of knowledge come into play (e.g., school-home-communications at AEL).

A distinction can be made for products between those that are extant and those that are to be developed by the lab. In the former category, FWL proposed to use (and further refine) Peer Assisted Leadership (PAL), a product developed in prior years. In the latter category, AEL proposed to develop a document, Guidelines for Assessing Secondary Remedial Software. NWREL planned to develop training materials for use with school network personnel.

Examples of practices to be collected and reviewed include "exemplary programs" (RBS), "existing performance assessment systems" (SEDL), and "career ladder options" (FWL).

Information Services. It may seem strange to see the category "information services" under improvement strategy since this would seem to be inherently a linkage strategy. However, the front end activities involved in information services are appropriate, i.e. database development and the preparation (in contrast to the dissemination) of reports, newsletters, inserts, briefs, etc. based on knowledge bases. Database development may be difficult to distinguish from knowledge bases used (see above). The term is used to refer to organized and manipulable knowledge bases.

AEL provides a range of information services, including writing topical reports, preparing topical pieces and inserts for the lab newsletter, preparing inserts for the newsletters of administration professional associations, and search and retrieval services for regional administrators. (These activities correspond to development in the Dunn ADD model for policy analysis (Dunn 1987). SEDL compiled a database on performance assessment systems and prepared reports based on it. It is noteworthy that only two of the seven labs chose to use information service strategies.

Knowledge Production. Knowledge production can take the form o research, evaluation, policy studies, or development. SEIL expected its activities in the first two years would lead to the identifying needs for future research. NE/I proposed two specific studies, one of central office leadership, and another of teachers as school improvement leaders. FWL and NWREL organized and developed training materials for institutes and NE/I prepared for publication a Directory to R&D Resources for School Improvement Leadership.

It is often difficult to distinguish between the improvement and linkage aspects of a given effort. For example, in organizing a leadership institute, the instructional content constitutes the improvement strategy while the organization of the institute (e.g., whom to invite from what organizations, whether to organize it on a state or regional basis, whether to use large group instruction or organize subgroups by roles or some other criterion) constitutes the linkage strategy.

Linkage Strategy

The three components of the linkage strategy are knowledge base interorganizational arrangements, and communication mode.

Knowledge Base. The knowledge base for the linkage strategy consists of bodies of knowledge concerning the most effective means of knowledge dissemination, implementation, and utilization. It can take the forms of research or ordinary knowledge, products, or practices/craft knowledge.

Documentation of the linkage knowledge base tended to be thin or absent in the material describing these programs. This area was covered in the original proposals under "lessons of research and experience in terms of implications for effective strategies to address [each task]" (RFP p.36). Because it probably applies to all programs, it is not repeated for each. The citations in Table 11 are taken from both the proposal introductory material and program/project documentation.

Research cited as the basis for linkage strategies included the General Purpose Dissemination Assistance (GPDA) Study (Louis et al, 1984), the Dissemination Efforts Supporting School Improvement (DESSI) Study (Crandall et al, 1983), Rogers' conceptualization of adoption stages (Rogers, 1962), open systems theory, and others. The only example of ordinary knowledge cited in association with this program was knowledge of the region (AEL), although all labs provided this kind of knowledge in other sections.

For linkage knowledge products, there is again the distinction between existing products and those to be developed. FWL proposed to use and further refine its previously developed Peer Assisted Leadership (PAL) product. (PAL was also mentioned above as part of the improvement strategy knowledge based, assuming that PAL contains both substantive knowledge and a linkage strategy.) It further proposed to develop a trainer of trainers capability and to design summer leadership institutes. NE/I took the route of compiling a directory of extant school improvement leadership resources. NWREL proposed to design network and collaboration models in one activity and develop training processes for training school network personnel in another. SEIL proposed to use products developed by two other labs and centers (FWL's PAL and the former Texas Center's Concerns Based Adoption Model) and develop its own training modules.

Similarly, practices can be existing or planned. AEL noted that it had a good deal of experience with practices growing out of its work with several NIE-sponsored dissemination programs: RDx

(R&D Exchange), R&D Interpretation Service (RDIS) and RS (Regional Services), a claim other older labs might make as well. NE/I planned to develop an Action Guide for School Improvement (probably a blend of improvement and linkage knowledge).

Interorganizational Arrangements. Possibilities for national collaboration lie chiefly in the improvement strategy, mainly in developing the various knowledge bases. Linkage is inherently a regional function at the service delivery end, although there are also possibilities of national collaboration in terms of reviewing the knowledge base for a linkage strategy and developing linkage models. Several labs list other labs and centers as national collaborators, but few details are provided. Regional collaborators include SEAs, professional associations, institutions of higher education, principals' academies (with varied sponsorship), and study groups. Clients included both service improvement organizations (SIOs) and service delivery organizations (SDOs).

Each lab's configuration of relationships with collaborators and clients is summarized by categorizing its interpretation of the "with and through" strategy. Focusing on the SIO as the sole client represents a "pure" indirect strategy. The approach of NE/I and NWREL is indirect in that they treat SIOs as primary clients and assist them in implementing programs with SDO personnel. RBS works with SEAs, ISAs, and LEAs. Its work with large metropolitan school districts can be considered "with and through" in that central offices of large districts function much like SIOs. FWL also works with the central office of a major urban district, not only as a client but also as a collaborator, in developing and testing products for use in its own district. On the other hand, AEL sees SDO administrators as its clients and state professional associations as its channels of access to them (i.e., sponsor).

Communication Modes. Virtually all labs organize their primary activities by state, although they held some regional conferences. The dominant service strategy is staff development. Variation occurs in whether new networks are organized or existing structures (e.g., principalship academies) are used; whether new linkage training is designed for SIO personnel; and whether the lab provides information or training to SDO personnel or assists or supervises SIO personnel in providing such assistance.

Conclusion to Improving Administrative Leadership

Our method has necessarily broken lab programs into pieces. Let us try for a more holistic view. These programs are all focused on improving knowledge and skills of a particular role group: mostly building administrators, but including central office staff and others in many cases. There appear to be two main approaches to the improvement strategy. One is to start with research literature and to develop training packages. The other is to collect, review, and package particular administrative practices. The principalship academy, either pre-existing or newly formed, is the most popular vehicle for linkage. Most labs use an indirect strategy, training the staffs of SIO agencies, and sometimes working with them to implement training programs. Most are organized by state rather than by region. It does not appear to be an area of significant national collaboration.

While use of inservice training is traditional, two aspects of most programs incorporate the findings of recent research. One is the recognition that the need for leadership resides not in a single role but a combination of roles at both the building and central office levels. The other is that single-shot training is only marginally effective and that more lasting effects can be obtained by involving trainees in a continuing network and providing various support services.

We now turn to a more fine-grained analysis of the interorganizational arrangements used as part of the linkage strategy in Task 2 and Task 4 programs.

Linkage Strategy: Types of Interorganizational Arrangements

Conceptual Approach

In moving to a focus on the linkage strategy, it will be necessary to shift methodology. In previous analyses we have examined three aspects of the linkage strategy: the knowledge base, communication mode, and interorganizational arrangements. However, the "with and through" strategy was perhaps the most salient innovation in the lab RFP design, and interorganizational arrangements made by labs to implement this design feature warrant a more fine-grained analysis. Understanding the nature and variations of this indirect strategy is crucial to designing the next round of contract awards.

The field of interorganization theory has been developing for a number of years as an offshoot of open-systems theory (Negandhi, 1975). It has been studied in health management among other fields outside of education (S. Mason, 1979). In education the present author prepared a multi-award RFP issued by NIE for studies of interorganizational arrangements that resulted in several ground-breaking reports (Huberman et al, 1981; Yin and Gwaltney, 1981).

The interorganizational collectivity (IC) has been proposed as the basic unit of analysis (Van De Ven et al, 1975). Note that not all relationships constitute collectivities, e.g., a lab and an organization receiving one-way communications. The relational properties of IC's have been examined from two perspectives: (1) the dimensions of interaction or exchange between organizations (e.g., formalization, intensity, reciprocity, and standardization); and (2) the mechanisms for coordination between organizations (e.g., mediated or unmediated; domain consensus, complementarity of resources, homogeneity of structure, mutual awareness, and stability between the organizations in the exchange relationship).

Unfortunately, documentation available for this study does not permit this level of analysis. However, it would be helpful if we could get a clearer description of the different kinds of ICs developed by the labs. Four kinds can be differentiated by observing two different factors. First, does the collectivity have a single or multi-purpose? Second, is the collectivity limited to two organizations (i.e., a bi-lateral arrangement), or are more than two organizations involved? The combination of these factors yields four kinds of ICs. (See Figure 7). Of course our meanings for these terms do not necessarily correspond to those used in the labs' reports. The reports being examined make many references to "networks" in particular, but this term seems to have different referents. The intent here is to use four terms and give them more precise meanings.

	Single-Purpose	Multi-Purpose
Bi-Lateral	PARTNERSHIP	COLLABORATIVE
Multi-Lateral	CONSORTIUM	NETWORK

Figure 6. Types of Interorganizational Collectivities

We can take the classification system several steps further. First, we need to note the lab's relationship to the IC in question. In some cases the lab is simply a member of the IC. In other cases it is not a member but stands in the relationship of service provider to a client IC. Adding the membership factor to the four types of IC yields eight types of IC configurations, as shown in Figure 7.

Previously we had noted that the educational infrastructure is

	Bi-lateral Single-purpose	Multi-lateral Single-purpose	Bi-lateral Multi-purpose	Multi-lateral Multi-purpose
Lab is Member	LAB PARTNERSHIP	LAB CONSORTIUM	LAB COLLABORATIVE	LAB NETWORK
Lab not Member	CLIENT PARTNERSHIP	CLIENT CONSORTIUM	CLIENT COLLABORATIVE	CLIENT NETWORK

Figure 7. Types of Lab/Interorganizational Collectivity Configurations

made up of three kinds of organizations, KPOs, SIOs, and SDOs (see II-1.) For present purposes KPOs and SIOs are combined and labeled SIO.

Analysis of Lab Programs

In Table 12 the four kinds of ICs appear as the column heads. Not all relationships constitute ICs. It is very difficult to define the boundary between interorganizational arrangements that constitute collectivities and those that are too evanescent to be counted, but activities involving one-way communication from the lab to some organization are not shown. However, the stub of the table shows the types of organizations the lab is related to and its role in relation to them.

A number of lab programs, projects and activities are classified in the cells of this table. No claim is made that this table is complete or comprehensive. Many projects or other work units are no doubt missing because it was not possible to work out a system for classifying everything. The goal is to examine projects in several different cells to gain a clearer understanding

Table 12. Linkage Strategy: Classification of Selected Task 2 and 4 Lab Programs/Projects by Type of Interorganizational Collectivity, Type of Organization, and Lab Role.

Lab Membership and Type of Organization	Single-Purpose Bi-Lateral PARTNERSHIP	Single-Purpose Multi-Lateral CONSORTIUM	Multi-Purpose Bi-Lateral COLLABORATIVE	Multi-Purpose Multi-Lateral NETWORK
A. LAB IS A MEMBER	LAB PARTNERSHIP	LAB CONSORTIUM	LAB COLLABORATIVE	LAB NETWORK
1. Service Improvement Organization(s) (SIOs)	Lab/center conference sponsorships: CPRE/NCREL, CPRE/SEDL, CPRE/SEIL CVE/AEL, NREA/McRel,etc. RBS: Applied Res/Policy Studies: Md High Sch Grad Requirements Study RBS: Applied Res/Impr Studes: Pa & Md studies of mandated minimum competency testing RBS & CIRCE: Effects of changes in assessment policy FWL 3.1: Suppt for Beg Tees w/CSU FWL 3.3: Preparing tees for work w/diverse stud pops, w/CSU NW 4.15: The Automated Workplace: Jt dev w/ corporate partners SEIL and McREL: contracts with IHEs & other agencies for RD&E	Lab Task 5 themes CSAP: Communication Services Assistance Prog (Lab network activity done by CeDAR) RBS & Consortium on Ed Policy Studies, Indiana U. NW 2.1: Info Ctr on Application of Technology: RICE database of courseware evals from "network" of SEAs NW 2.5: Collegial Tea Trng (w/ SEAs, ISAs, & IHEs NW 4.4: Technological Literacy for All: mixed meeting with subj matter and tea organizations FWL 1.5: Teaching for Sci Literacy: w/CSU & Kern Co CA	RBS/SEA agreements (Task 3?) FWL/CSU (CA State Univ) agreement	SEIL, NCREL (and others) State Advisory Committees NCREL: State Liaison Committee Lab portion of Urban Ed Network AEL, McREL, NCREL
2. Service Delivery Organization(s) (SDOs)	FWL 3.5: Promote district options for sch impr w/Clark Co NV McREL: School Audit Experiement with Shoshone, WY	RBS: Study of 10 High Schs with Mid Atlantic Meto Council NCREL 8.3: Curr Design in Tea Ed est a consortium to sponsor the study of induction progs		AEL: Teacher study groups AEL: Adm study groups
3. Mixed SIOs and SDOs		SEIL: SEED (Software Eval Exch) with SEAs and LEAs FWL 1.3: Sch Dropout Task F, Phoenix, w/ state leg, bus, etc. FWL 2.1: Outcome Based Ed w/ UT SEA & ISAs		
B. LAB IS SPONSOR/ SERVICE PROVIDER	CLIENT PARTNERSHIP	CLIENT CONSORTIUM	CLIENT COLLABORATIVE	CLIENT NETWORK
1. Service Improvement Organization(s) (SIOs)	RBS: Applied Res/Policy Studies: 4 pol studies done for Pa legisl SEIL contracts with IHEs AEL: Classroom Instr Prog: provide TA to NEA's Mastery in Learning McREL: Resource support for ISAs in NE, KS, and CO	SEIL: "Network" of site directors of SE Writing Projects (SEWP) SEDL: Themes A, B, C (or are these broadcasting rel's?) NCREL: Video conf w NDN facilitats NCREL: Technology Info Exchange FWL 3.2: Provide TA for implement prof dev ctr net f rur schs NV AEL: Design & test instr strategy for use in teacher ed		NW 2.11: Regional Indian Ed Net (State Indian Ed Assocs) NE/I: Leadership for Scho Impr Net RBS: Coop Sch Impr Networks: o MD Council of Assist Supts o Labor-Mgmt Cooperation Network o Mid Atl Metro Council (5 LEAs)

(This table is continued on the next page.)

Table 12. Linkage Strategy: Classification of Selected Task 2 and 4 Lab Programs/Projects by Type of Interorganizational Collectivity, Type of Organization, and Lab Role. (continued)

Lab Membership and Type of Organization	Single-Purpose Bi-Lateral PARTNERSHIP	Single-Purpose Multi-Lateral CONSORTIUM	Multi-Purpose Bi-Lateral COLLABORATIVE	Multi-Purpose Multi-Lateral NETWORK
	CLIENT PARTNERSHIP	CLIENT CONSORTIUM	CLIENT COLLABORATIVE	CLIENT NETWORK
2. Service Delivery Organization(s) (SDOs)	RBS: Applied Res/Policy Studies: strategic planning studies in LEAs and local schools NW 2.8: Training Ctr for Classrm Assess: trng teas, trainers, prs collab w SEAs, ISAs & IHEs NW 2.13: Pac Local Capacity Bldg NW 2.15: Problem Clarification/ Need ID: (Service to ind LEAs) NW 4.18: Voc ed pilot test sites FWL 1.2: Self-Directed Learning in Sci w/Washoe Co NV; Workshop Way proj w/Davis Co UT FWL 1.4: CSU training of teas in LA FWL 2.2: Use of Tech: Plan & Serv w/CA SEA; res & plan w/NV SEA AEL: Classrm Instr Prog: on demand TA to schools	SEDL: Theme D Demo sites: Lab & LEA-SIO pair RBS: Field tests of special pops school improvement model NW 2.10: Effective Practices in Indian Education NE/I: Tea Dev: Tea Change Net for assist supts FWL 2.3: Resource Support fo CA County Offices of Ed McREL: Demo sites in KS & CO	McREL: with Denver LEA, Cherry Creek Schools, Valdes and Willow Creek	NW 2.12: Ed Networks for Sch Impr: El Net; Middle/Jr Net/ Sr Hi Net McREL: LEAD Center Network McREL: Rural Network AEL: Classrm Instr & Gov/Org Progs: Study Groups & Reg Conf RBS: Coop Sch Impr Network: ɔ Rural Schs Exchange (300+ dists)
3. Mixed SIOs and SDOs	NCREL dissemination partners (signed agreements)	SEDL: state level meetings NE/I: Ed-Work Partnerships	NW 2.7: Rural Networking: SIOs (mostly IHE's) each run rural net with NW help: diff foci.	Lab SIO/SDO: Urban Ed Network AEL, McREL, NCREL; supts & prs McREL Staff Dev Network

of what these different linkage arrangements mean in practice.

Despite this disclaimer I will hazard two generalizations. First, the collaborative (multi-purpose, bi-lateral) seems to be the least popular form of IC. The agreements that RBS has drawn up with each SEA in its region (which apply primarily to Task 3) fall in this category. Similarly, the relationship between FWL and the California State University (CSU) covers a range of activities. In fact the two organizations overlap in that the Southern Service Center operated by FWL is shown as a unit in the lab table of organization. At the bottom of the chart, the NWREL Rural Networking Program is really a three-level arrangement and therefore classified as "mixed." The lab provides support services for a number of SIOs (presumably separately), which in turn provide services to a network of rural schools. Perhaps the lab/SIO relationships would be better categorized as partnerships and SIO relationships as client networks.

The second generalization cautiously advanced is that there are far more single-purpose arrangements (partnerships and consortia) than multi-purpose (collaboratives and networks). This seems to point to the desirability of flexible arrangements for responding to shifting needs and opportunities.

ICs with Lab Member. The top half of the table contains ICs in which a lab is a member of the collectivity. It is undertaking an activity jointly with one or a series of organizations on a more or less equal footing. Variation occurs in terms of whether the other organizations are SIOs, SDOs or mixed, whether the activity has a single or multiple purpose, and whether the relationship is bi-lateral or multi-lateral.

There were a number of cases of partnerships between labs and SIOs. A frequent activity was joint sponsorship of a conference with a research center. RBS reports working on research studies jointly with the Maryland and Pennsylvania SEAs. It had another partnership with the Center for Instructional Research and Curriculum Evaluation (CIRCE) at the University of Illinois. The FWL/CSU relationship, already noted at the institutional level, shows up again as partnerships for specific projects.

Although business corporations are not, strictly speaking, SIOs, one program involving corporations is placed in the SIO partnership cell. NWREL worked with several such corporations in its Automated Workplace program to get a more accurate idea of the work environments that students would be moving into.

There was one case of a partnership with an SDO: FWL's work with Clark County, NV, on the project, "Promote District Options for School Improvement."

The **consortium** may be the most frequent form of lab membership in an IC. Individual themes under Task 5 would be the clearest example: three or more co-equal organizations working together on one topical theme. Similarly, joint lab sponsorship of CSAP, (Communication Services Assistance Project) at CeDAR is a cross-lab activity, operated in this case by a third-party SIO.

NWREL has three projects involving multiple SIOs. In one, SEAs provide software evaluations for a database operated by the

Information Center on Application of Technology. In another, a meeting focused on Technological Literacy for All was attended by both subject matter and teacher organizations. And in a third, it worked with SEAs, ISAs, and IHEs on the Collegial Teacher Training Project.

Labs are also involved in consortia with SDOs. RBS made a study of 10 high schools working jointly with the Mid Atlantic Metropolitan Council (composed of SDO administrators). NCREL established a consortium to sponsor a study of induction programs.

In the "mixed consortia" category, SEIL operates the Software Evaluation Exchange (SEED), apparently similar to the NWREL project, but involving both SEAs and LEAs as sources of evaluations. FWL worked with a Dropout Task Force in Phoenix, AZ, with both the LEA and community representatives. It also operated an Outcome-Based Education project in Utah in conjunction with both the Utah SEA and state ISAs.

Continuing across the top half of the table, we have already noted the paucity of lab collaboratives. Lab networks are also relatively scarce. The Urban Education Network is somewhat difficult to classify. It is operated by three labs, so there is a lab network at that level. But as a whole it is better classified in the lower right box as a "client network," since the labs provide support for SDO members of the network.

Client ICs. Although not Task 2/4 projects, state advisory committees and liaison committees operated by a number of labs might be considered client networks of either the SIO or mixed variety. RBS works with four networks, three at the SIO level and one at the SDO level. In the former group are the Maryland Council of Assistant Superintendents and the Mid-Atlantic Metropolitan Council (the five largest LEAs in the region), being counted as SIO personnel here because central offices of large districts function like SIOs; and the Labor-Management Cooperation Network. In the latter category is the Rural Schools Exchange. McREL operates a rural network and a LEAD Center network.

Improvement Strategy: RD&D Approaches

We would also like to develop a more fine-grained analysis of some of the improvement strategy categories.

Research Approach

In previous analyses we have used a breakdown of the research approach into research, evaluation, policy analysis, and planning. In Table 13 these categories appear in the stub. For each of these, a further differentiation can be made in terms of the primary source of data, i.e., primary data, secondary analysis, and interaction documentation. These categories appear as column heads in the table. The first two of these are straightforward. The third, "interaction documentation," needs some explanation. Labs hold many meetings with other groups and individuals. Frequently these are "working meetings" rather than listening to speakers. When people share ideas and interact at these meetings, a documentation of what occurs is often made that constitutes an intellectual product termed "interaction documentation."

Table 13. Improvement Strategy: Classification of Selected Task 2/4 Lab Programs/Projects by Research Approach.

Research Approach	Primary Source of Data		
	Primary Data	Secondary Analysis	Interaction Documentation
A. Applied Research	RBS:CSIP/Applied Res/Policy Studies Mid Atl Council study of 10 H Schs NW 4.5: Res on Classroom Assessment three studies collect primary data NW 4.6: Tea Turnover in Reservation Schools NE/I: Leadership for Sch Impr: Study of Urban High Schools FWL: Study of tea recruitment & retention in CA	NW 4.5 Res on Classroom Assessment One study is synthesis of res NW 4.13: Sch Improvement Res Synth NCREL: rev of res on strategies for improving instruction NCREL: 10 "Interpretations of res on teacher roles" & 4 interps of case study research NCREL: 24 papers/monograph on dimensions of thinking NCREL: Rev of lit on incentives for personnel AEL: Anal of longit DB on family conditions & student achievement AEL: Demog Study of Rural Smal Schools and Districts McREL: Teacher Demand & Supply	SEIL: Model for tea research on writing (subcontract) NCREL: Invitational seminar on strategies for improving instr will produce mats for summer inst AEL: Classroom Instruction Prog: Study group reports
B. Evaluation	SEIL: Tracer study of SEED (subcon) RBS: Paper: Exemplary SD Practices Related to Info Collection & Use McREL: Reader Response:McREL Update RBS: Studies of state mandated min competency testing in PA & MD; Study of MD HS Grad Requirements FWL: Eval prof dev ctr in NV co : Eval career ladder syst in UT : Eval CSU Summer Bridge & Intensive Learning Experience Progs AEL: The Effectiveness of Study Groups as an R&D Methodology	NW 2.1: Qtr software analysis reports NW 2.4: Item & Test Info Ctr: Consumer Guides & Guide to Item Banks	RBS: CSIP/Org Eff/Sec Sch Impr: Paper: Sec Schs & Central Office NW 2.5: Reg conf on Collegial Staff Dev (no proceedings?) NW 2.12: Regional Nets for Sch Imp
C. Policy	SEIL: Teacher labor market studies SEIL: Longit study of tea cert RBS: Appl Res/Policy Studies: Strat Planning Studies in LEAs & schs; Coord of Ed & Soc Services in.PA	SEIL: Supply Side of Tea Lab Mkt RBS: 3 position papers for PA leg	Reports of policy forums
Planning	NW 4.18: Effective Voc Ed: Use strategic planning to work w LEAs toward new directions in voc ed McREL: North Dakota State Plan for Technology	NW 4.12: Profile of Pacific Schs NW 4.15: The Automated Workplace: synthesis of previous research NW 4.18: Eff Voc Ed: lit search NE/I: Leadership for Sch Impr: sec analysis of 2 sch impr studies NCREL: Rev of lit on SD; dev framework for planning SD progs McREL: various strat plan projs	NW 2.7: Rural Networking:supervise & monitor plan & dev of collab arrangements between nets & SIOs NW 2.17: State plans for working with and through SIOs NW 4.4: Technology Forecast Panel

The reliability of coding lab programs and projects into the cells of this table may not be high, but the typology may still have heuristic value in illustrating a fairly wide variety of research approaches and methodologies used. Again, no claim is made that this table represents a complete and comprehensive classification of lab activities.

While no attempt to review all of the work found in each cell is being made, a few comments are in order. Examples were found for every cell of the table. Collection and analysis of primary data is still an approach used by labs. While there is no way of quantifying and comparing the level of effort for the three columns, it appears that most labs are more involved in secondary analysis rather than the analysis of primary data. In addition, in a number of cases involving primary analysis, the work is being done by a subcontractor rather than by lab personnel. Interaction documentation constitutes an important form of knowledge production for labs.

The evaluation category may include some projects not actually funded by OERI; it is not always easy to tell whether the work being reported is inside or outside the OERI contract.

Development/Demonstration Approach

Development and demonstration are also knowledge-based improvement strategies, but they cannot be subclassified in the same way as research approaches. The categories used in the stub of Table 14 are of a mixed bag. Development is divided into two types, that done by the lab alone and that done jointly with some other organization. Promising practices is a knowledge-based approach, but it is based, at least in the first instance, on craft knowledge, not research knowledge. We will investigate this strategy in more detail below. Finally, Demonstration involves implementation and operation of an innovation on site, usually but not always a local school, to document and illustrate the feasibility and effectiveness of the innovation. Demonstration is a permissible exception to the "with and through" linkage strategy when SDOs are involved that permits the lab to retain "hands on" experience.

The column heads of the table differentiate types of materials as student materials, teacher materials, trainer materials, and administrator materials. This is probably the least reliable classification of all because it is frequently difficult to tell for whom the materials are intended. Projects involving "program descriptions" are generally classified as "administrator materials," although the programs might well be oriented toward teachers or trainers.

Again, no claim is made that this table is comprehensive; in addition, generalizations are hazardous. It would appear, however, that the focus is on student materials less often than on other types of materials. This represents a sharp contrast to the former focus of older labs when the primary improvement strategy was curriculum development.

When development is involved, it appears that labs are more likely to proceed on their own than to engage in joint activity.

Table 14. Improvement Strategy: Classification of Selected Lab Task 2/4 Programs/Projects by Development/Demonstration Approach.

Type of Development Demonstration	Type of Materials			
	Student Materials	Teacher Materials	Trainer Materials	Administrator Materials
A. Laboratory Development	NW 2.2: Tea Ctr for Demo & Trng: Collection of hardware & software	RBS: Special Populations Sch Improvement Model NW 2.8: Trng Ctr for Classroom Assessment (also T of T & prs) McREL: Math scope & sequence for rural high schools McREL: Tactics Teacher Manual NCREL: Options handbook on strategies for instr impr	SEIL: Guide to Pvt Sector Resource for Principal Effectiveness SEIL: Effective Math K-5: workshop model, handbook, video tape RBS: Organizing for Sec Sch Dev NW 4.7: Res Based Sch Impr NW 4.10: Eff Voc Ed:trng materials NCREL: Prof Dev: Manual for staff dev planning NCREL: Models/indicators of instr leadership NCREL: Res synth on tea ed FWL: Outcome Based Ed: Casebook, Models of Instr Org AEL: Classrm Instr Prog: Devl Turnkey Training Activities McREL: How to Teach Teachers	SEIL: 2 clusters of modules: Competencies of High Perf Prs RBS: Spec Pops Sch Impr Model NW 2.7: Rural Networking: Trng mats for SIOs re role in developing rural nets NW 2.8: Trng Ctr CR Assess: trng materials for principals NW 4.6: Adm Guide for Tea Turnover in Reservation Schs NW 4.13: Sch Impr Res Synth: Dev electronic communication system RBS: Institutional Analysis: Directory of instruments McREL: Ed leadership trng modules McREL: Planning guide for impl
B. Joint Development	NE/I: Modules for Thinking Skills Program (Jt w Harvard prof)	NW 4.15: The Automated Workplace: dev corporate mentoring & field placement program (w bus collabs) FWL 3.1: Eff Suppt Beg Teas, w/LA, dev & test training prog FWL: Devl & test Teaching for Scientific Literacy McREL: ASCD tape on strategic planning	NW 2.5: Collegial Tea Trng: Mentor Teacher Handbook (with SIOs) FWL 3.1: w/Los Angeles SD, dev 3 sets of resource mats for mentor teaching	RBS: LORE (Leadership for Org Renewal & Effect) w/Phila RBS: Sch D Eff Audit (w NJ Sch Bds Assoc) NW 2.7: Rural Networking: Dev rur networking models NW 4.12 Pacific R&D Database AEL: Reg Liaison Ctr: Model of home-schoo-com partnerships w/Norfolk community
C. Promising Practices	SEIL: SEED (Software Eval Exchange see Tracer Study NW 2.1: RICE database on courseware evaluations (Jt w SEAs) NW 4.14: Prom Pracs for At Risk Y McREL: Prairie Winds	NW 2.4: Item & Test Info Center NW 2.10 Eff Practice in Indian Ed NW 2.12: Reg Nets for Sch Impr NW 4.1: Computer & Curr Studies: cases of integrating software & curriculum NW 4.12: Pacific Eff Practices NW 4.13: Sch Impr Res Synth: Exemplary Practices NE/I: Identified print, prog & human resources on 6 topics; & resource bibliographies NCREL: Handbook of options for evaluating computer applications NCREL: Collect & collate info on cutting edge applications of tech to students at risk & HOTS NCREL: Collect, study & analyze SEA & LEA practices, policies, progs on personnel incentives FWL 2.1: Outcome Based Ed products school profiles & resources dir	SEDL: Theme B: Applying Technology to Sch Impr ??? NW 2.5: Collegial Tea Trng: Search for PPs for induction & long term prof dev (w SIOs) NW 4.10: Eff Voc Ed: study eff practices at sch sites NE/I: Tea Dev: Guidebook NCREL: Prof Dev: project in 2 states to ID distinctive SD progs FWL 3.1: Eff Suppt Beg Tea, w/ CSU dev casebook, Close to the Classrm AEL: Prof Prep & Res: VA & WV, directory of tea trng resources	SEDL: Theme A: Partnerships with Parents, Business, & Communities SEDL: Theme C. Tea/Adm Perfmance Assessment Systems RBS: Compendium sch impr indicator NW 2.6: Sch impr thru Eff Tea Eval: Five Keys to Growth NW 2.15: Need ID: trng mats on problem analysis NW 2.14: Pvt Sector Networking: Linkage models NE/I: Tea Ed Reform Database NE/I: Leadership for Sch Impr: Directory of Resources FWL 1.1: Profile of state assessment programs FWL 3.1 Eff Support Beg Teas w/CSU Policy & Prog Casebook AEL: Gov/Adm: study group products
D. Demonstration	NW 2.2: Tea Ctr for Demo & Trng: Demos of hardward & software at headquarters & in field NW 4.14: PP for Hi Risk Y: Help selected LEAs plan alt learn envi: McREL: Technology Demonstration SD DAT	NE/I: Agreements with 6 SEAs & 11 LEAs for demo schs, At Risk Y FWL 1.2: Self-Dir Learn in Sci AEL: School Excellence Sites (SES) McREL: ACCESS: Preparation for SAT and ACT	SEDL: Impr Sch & CR Productivity: outcomes for trng SIO facilitator 5 sites w SIO partners NW 2.13: Pacific Local Cap Bldg: Train trainers ("local cadres") FWL 3.1: Eff Suppt Beg Teas, w/CSU Support & document pilot demos in clinical supervision of beg teas McREL: Tactics training for MO Leadership Academy	RBS: Sec Sch Impr: demo sites, working w teams fr cent off FWL 3.5: Promote Dist Options for sch impr, w/ Clark Co NV

On the other hand, the promising practices strategy is almost always an approach requiring work with other organizations.

Approaches to Staff Development

The last two sections have provided an overview of lab linkage and improvement strategies and subtypes of interorganizational collectivities, and research and development/demonstration approaches. We would now like to get a more holistic view of contrasting strategies.

While all laboratories identified staff development as an important educational focus, there was considerable variation in definition of the problem and improvement and linkage strategies employed. Because they divide naturally into three subgroups, profiles of selected of staff development programs appear in three separate tables: 15, 16, and 17. Table 15 shows three labs that selected a trainer of trainers approach mixed with an important knowledge production component. Table 16 shows three labs that also had a knowledge production component but combined it with information dissemination rather than training. Finally, Table 17 shows the other three labs that adopted three different strategies: a nearly pure knowledge production approach (FWL), a networking and information dissemination approach (McREL), and a comprehensive approach (NWREL). Note that these are selected programs, chosen to reflect variations in approach. No claim is made that the program selected for any lab necessarily reflects its total approach to staff development.

Table 15. Selected Approaches to Staff Development: Knowledge Production and Training Trainers

Design Feature	AEL	RBS	SEIL
Program/ Project Name	Classroom Instruction Prog 2. Training opportunities b. TURNKEY TRAINING*	Cooperative School Improvement Instructional Improvement TURNKEY TRAINING	EFFECTIVE K-5 MATHEMATICS REMEDIATION
A. Problem Definition (Educational Focus)	A. PROBLEM DEFINITION 1. Need: to improve teaching & learning in region 2. 3 principles of action: o Work with and thru o Privide R&D-based info o Provide opportunities for teas to increase kn	A. PROBLEM DEFINITION	A. PROBLEM DEFINITION 1. Need for more teachers with four competencies 2. Goals: o Communicate theories and strategies of instruction o Train trainers of trainers
B. Improvement Strategy	B. IMPROVEMENT STRATEGY o Using methodology of RDIS synthesize research on st dev, math & sci, and oral & written comm & reading o Produce 4 training pkgs in 86 and 9 in 87	B. IMPROVEMENT STRATEGY o Produce/refine training packages in 3 content areas: thinking skills, elementary excellence, and instruction supervision.	B. IMPROVEMENT STRATEGY o Knowledge base is research synthesis on four competencies teachers should have. o Dev products: workshop model, handbook & video ta
C. Linkage Strategy 1. Collaborators and clients	C. LINKAGE STRATEGY 1. Collaborators/clients o NEA state affiliates are sponsors; trainers = SDO personnel "charged with staff development"	C. LINKAGE STRATEGY 1. Collaborators/clients o Collaborators: SIOs o Clients: staffs of LEAs, SIOs, prof assocs, & SEAs	C. LINKAGE STRATEGY 1. Collaborators/clients o SEAs sponsor and nominate participants o SDO personnel are trainees
2. Services	2. Services o Training workshops	2. Services o Turnkey training	2. Services o Develop non-content parts of workshop model o Train trainers
3. Provision for 2nd tier	3. Second tier o Ad hoc	3. Second tier o Ad hoc	3. Second tier o Ad hoc
D. Impact 1st level 2nd level 3rd level	D. IMPACT o 120 in 6 workshops in 87 o 236 by 19 of above	D. IMPACT o "...the use of materials was more piecemeal than programmatic"	D. IMPACT o 20 in 1 workshop in '87 o 32 by 2 of above
E. Remarks	E. REMARKS: Part of larger program. *Also provides turnkey training to NEA's Mastery in Learning project.	E. REMARKS	E. REMARKS Was subject of 3rd party tracer study.

__KP/TT Approaches to Staff Development.__

AEL, RBS, and SEIL all designed trainer of trainer programs utilizing materials developed for that purpose. The problem definitions of AEL and SEIL combine pragmatic and theoretic rationales. SEIL had the narrowest focus, namely K-5 mathematics remediation. AEL and RBS included both curricular foci (math and science, oral and written communication, thinking skills) and more general staff competencies (research on staff development, elementary excellence, and instructional supervision). For an improvement strategy, both AEL and SEIL produced research syntheses as the knowledge base for their training materials. It is not clear whether RBS used a research or promising practices approach; it specifies "produce/refine training packages in three content areas." Both AEL and RBS refer simply to "training packages." SEIL identifies three development products: a workshop model, a handbook, and a video tape.

The labs also varied in their linkage strategies. They tended to perceive staff development as an internal SDO function rather than one for which school districts look for outside assistance. Although state NEA affiliates (AEL) or SEAs (SEIL) acted as sponsors, the clients were SDO personnel charged with staff development responsibilities. RBS trained both SDO and SIO personnel.

Curiously, it appears that none made specific provisions for the training that clients were expected to provide. Apparently they believed that this would be taken care of by selecting individuals with staff development responsibilities (AEL) or from SIOs with improvement roles (RBS). The third lab (SEIL), relying on nominations from SEAs, found that some of its trainees were principals with no training responsibilities or teachers who perceived themselves as weak in the subject matter and therefore unqualified to train others. Perhaps it is difficult to influence established and active inservice programs, and labs may not have much leverage concerning second and third tier training, but it seems that labs need to give further thought to these next steps before they employ a TT strategy. Impact data indicate considerable attrition from one tier to the next. In the case of AEL, although 120 trainers were trained in six workshops in 1987, only 19 of these provided training to others. These 19 trained 236 in the second tier. SEIL held only one workshop for 20 trainers in 1987. Only two of these trained 32 at the next level. Clearly reduction in the attrition rate could greatly increase the leverage achieved with a TT approach.

KP/Information Dissemination Approaches to Staff Development

A second group of three labs (NCREL, NE/I, and SEDL) combined knowledge production with information dissemination (see Table 16). Problem definitions tended to be pragmatic. All three labs employed a promising practices improvement strategy, although NCREL included a component for designing and testing training materials, and NE/I indicated an interest in using adult learning theory.

No collaborators wre identified for the linkage strategy. Clients of the information dissemination efforts were more general

Table 16. Selected Approaches to Staff Development: Knowledge Production and Information Dissemination

Design Feature	NCREL	NE/I	SEDL
Program/ Project Name	Program for Professional Dev B.1 STAFF DEVELOPMENT	Priority Area 2: Teacher Development 2.1 PROFESSIONAL DEV MODELS	A.3 PROVIDE TA [to SIOs] TO HELP THEM PREPARE ELEM TEACHERS & ADMS FOR PARENT INVOLVEMENT
A. Problem Definition (Educational Focus)	A. PROBLEM DEFINITION o Reform reports call for improved inservice for both beginning and experienced teachers o Need new goals and models, & innovative delivery & implementation strategies o New staff dev legislation	A. PROBLEM DEFINITION o The variety of groups that provide staff development need support	A. PROBLEM DEFINITION Partnerships with parents can: o help with problem of shrinking resources & rising expectations o improve climates for learning
B. Improvement Strategy	B. IMPROVEMENT STRATEGY o Study and catalog staff dev programs & practices o Design and test training materials o Profile practices in schools of education o Prepare papers	B. IMPROVEMENT STRATEGY o Apply adult learning theory o Develop effective practices file/directory/guidebook	B. IMPROVEMENT STRATEGY o Compile bibliography and directory of materials on parent involvement
C. Linkage Strategy 1. Collaborators and clients	C. LINKAGE STRATEGY 1. Collaborators/clients o Clients = "Dissemination partners" (misc KPOs & SIOs) [inferred]	C. LINKAGE STRATEGY 1. Collaborators/clients o Clients = LEAs, ISAs and IHEs	C. LINKAGE STRATEGY 1. Collaborators/clients o Clients are trainers in state-level tea ed assocs, SEAs, IHEs, etc.
2. Services	2. Services o Information dissemination [inferred]	2. Services o Information dissemination	2. Services o Develop procedures and recommendations for providing tech assistance
3. Provision for 2nd tier	3. Second tier: o Ad hoc	3. Second tier: o Ad hoc	3. Second tier o Ad hoc
D. Impact 1st level 2nd level 3rd level	D. IMPACT	D. IMPACT	D. IMPACT o Six state-level workshops for 165 representatives. o No data on second and third tiers
E. Remarks	E. REMARKS Source: "Addendum to Full Service Plan FY 1987"; Project could not be identified in 4th Qtr Report	E. REMARKS Original more comprehensive program scaled down in second year.	E. REMARKS One piece of programmatic effort on parent involvement. Described as TA rather than training.

than targeted. NCREL apparently sent its information to all its "dissemination partners," which included a wide variety of KPOs, SIOs and SDOs. Similarly, NE/I sent information to LEAs, ISAs, and IHEs. SEDL's effort was more targeted, aimed at trainers in state-level teacher education associations, SEAs, and IHEs. The exact nature of SEDL's work is hard to categorize. It describes it as technical assistance (rather than training or information dissemination). Six state-level workshops were held for 165 "representatives" who were given information about the SEDL materials on parent involvement and "procedures and recommendations for providing technical assistance." It seems closer to being a trainer of trainers program.

No data on impact are provided, either in terms of adoption or use of promising practices (NCREL and NE/I) or provision of technical assistance by those receiving the SEDL materials.

Miscellaneous Approaches to Staff Development

Finally, three labs had unique approaches to staff development (FWL, McREL, and NWREL). Profiles of these programs are found in Table 17.

FWL. The approach used by FWL appears to be almost exclusively a knowledge production effort. The Los Angeles School District is a very large LEA that hires over 3,000 new teachers each year. The FWL is focused on development of a mentor program whereby experienced teachers provide support for these beginning teachers. This development effort was a collaborative one with the Professional Development Center and produced three resources: a

Table 17. Selected Approaches to Staff Devepment: Miscellaneous

Design Feature	FWL (Knowledge Production)	McREL (Networking & Information Diss	NWREL (Comprehensive)
Program/ Project Name	Prof Prep & Development EFFECTIVE SUPPORT FOR BEGINNING TEACHERS	Subtask 2.3: Network & Broker People and Resources 2.3.2: Foster Interpersonal Networks: STAFF DEV NETWORK	2.5 COLLEGIAL TEACHER TRAINING
A. Problem Definition (Educational Focus)	A. PROBLEM DEFINITION 1. Need: Los Angeles hires over 3,000 new teachers per year 2. Goal: Assist Los Angeles Prof Dev Center train 900 mentors	A. PROBLEM DEFINITION 1. Large region with geographi diversity, sparce populatio and isolated professionals 2. Limited infrastructure and declining local and state resources	A. PROBLEM DEFINITION 1. Too few excellence reforms focus on instruction level 2. Goals: o Establish prof dev network o Build capacity of SIOs to train area collaboratives o Diss findings fr kn bases & collab efforts reg & nat
B. Improvement Strategy	B. IMPROVEMENT STRATEGY Jt dev w/ LEA of 3 resources: o Leader's Guide for Preparing Mentor Teas o Mentor Teacher Casebook o Intern Teacher Casebook	B. IMPROVEMENT STRATEGY o Ad hoc: identified through network interaction	B. IMPROVEMENT STRATEGY o Synthesize res on effective schooling, tea, & prof dev o Dev handbooks for mentoring thru collab design confs o Find promising practices for induction and long-term prof development
C. Linkage Strategy 1. Collaborators and clients	C. LINKAGE STRATEGY 1. Collaborators/clients o Professional Development Center of Los Angeles LEA	C. LINKAGE STRATEGY 1. Collaborators/clients o Individuals w staff dev as major resp, fr SIOs, SDOs, and private consultants	C. LINKAGE STRATEGY 1. Collaborators/clients o Collaborators: SEAs & IHEs o Clients: consortia of SDOs
2. Services	2. Services o Development + publication and sale of resource books beyond Los Angeles	2. Services Network creation & sponsorship o Semi-annual meetings o Coordination mechanisms o Steering committee	2. Services o Info: diss hbooks; reg conf o TA to consortia o Jt trng with SIOs at demo sites & other SIOs o Demo sites in 3 States o Estab prof dev network
3. Provision for 2nd tier	3. Second tier o Trng mentors is regular responsibility of partner	3 Second tier: o Ad hoc	
D. Impact 1st level 2nd level 3rd level	D. IMPACT o Not specifically stated; Presumably 3,000 mentors trained by PD ctr staff.	D. IMPACT o Increased SEA communication o McREL participates in SEA inservice programs o SEA exchange of personnel	D. IMPACT o No data
E. Remarks	E. REMARKS	E. REMARKS	E. REMARKS

Leader's Guide for Preparing Mentor Teachers, a Mentor Teacher Casebook, and an Intern Teacher Casebook. The linkage strategy was the use of these materials by the Los Angeles School District in its regular staff development program. Presumably over 3,000 mentor teachers were trained by the Professional Development Center. In addition, the materials were made available for purchase by other districts. In this case joint development with a large SDO virtually assured implementation.

McREL. McREL's Staff Development Network Program is probably the most opportunistic of the nine. (Other staff development activities are carried out in other programs.) It consists of creating and supporting a network of persons responsible for staff development in SEAs, other SIOs, SDOs, and private consultants. McREL's support consisted of (1) organizing semi-annual meetings, (2) coordination mechanisms, (3) a steering committee, and (4) distributing related information. The resulting staff development improvement efforts were ad hoc, emerging from the interaction of network members. McREL cites as impact increased communication among staff development personnel in different SEAs, McREL participation in SEA inservice programs, and exchange of staff development personnel among SEAs.

NWREL. The staff development program of NWREL, Collegial Teacher Training, is the most comprehensive. It notes that too few excellence reforms focus on the instructional level. The goals of the program are to establish a professional development network, build the capacity of SIOs to train LEA collaboratives, and to disseminate regionally and nationaly findings from knowledge bases and collaborative efforts. Three improvement strategies are used: research synthesis, handbook development, and selection of promising practices for both induction and long term professional development. For linkage, both SEAs and IHEs are listed as collaborators, although the nature of the collaboration is not specified. Interestingly, the clients are not individual LEAs but consortia of LEAs interested in improving staff development efforts. Given the small size of most Northwest districts, joint staff development efforts are apparently felt to be more cost-effective. Specific services run the gamut, including regional conferences, dissemination of handbooks, establishment of demonstration sites in three states, joint training with SIOs at these sites and at other SIOs, provision of technical assistance to consortia of SDOs, and establishment of a professional development network. Unfortunately, no impact data are provided.

Comments

Staff development was recognized as an area of need by all laboratories. Some focused on the problems of inducting beginning teachers while others focues on inservice for experienced teachers, or both. One or more labs used virtually all improvement and linkage strategies. This would be a good topical area for labs to get together and compare notes on what works best and possibly design some comparative studies that would produce more systematic evidence.

The Promising Practices Improvement Strategy

The RFP enjoined labs to use R&D-based knowledge as the basis for its improvement efforts. When the labs employ a research synthesis strategy or develop materials designed with reference to some research knowledge base, it is clear that they are using this approach. When they search for and select promising practices for cataloging and disseminating, it is difficult to say whether the practices are R&D-based.

For some years, programs supported by OERI have attempted to give equal weight to craft knowledge and R&D-based knowledge. During this same period philosophers of science have argued the relative merits of various paradigms such as positivism, behaviorism, action research, interactive research, and naturalistic inquiry. These issues are beyond the scope of this study, but we would like to get a clearer picture of just what is involved when labs employ a promising practices methodology. What kinds of search strategies are employed, and what criteria of selection are used? In what sense, if any, are the practices R&D-based?

Most of the labs employed a promising practices approach in at least one project. Unfortunately, the information available for this study is not detailed enough to permit the kind of analysis employed for other issues. For example, an action step for a project might specify "Identify criteria for selection of promising practices," but the criteria used are not reported in the kinds of documents used for this study. Therefore, this section will be limited to identifying some of the programs and projects that employ this approach, examining some variations, and discussing some of the issues involved.

The following is a list of lab programs and projects that appear to employ a promising practices approach:

FWL. 3.0 Enhancing Teacher Quality and Support for School-Based Improvement:
  3.3.2: Inventory preservice and inservice interests and activities in the western region.
  3.5.1: Help districts assess existing school-level practices and capabilities.

NCREL. B.1. Staff Development: Identify distinctive staff development programs in two states; describe data collection procedures and standards employed. Publication in 1988.

NE/I. 3.1. Resources for Effective Classroom Practice. Six topical areas; publish resource bibliographies, overview articles, list of materials, and list of program descriptions.

NWREL. Activity 2.4: Item and Test Information Center: Gather and compile tests, testing ideas, assessment approaches, issues and items;
Activity 2.5: Collegial Teacher Training: Conduct search for promising extant models for induction and long-term professional development.
Activity 2.14: Private Sector Networking: Survey regional and national linkage models and classify by purpose.
Activity 3.4 Educational Standards and Their Impact on Organizations: Establish a repository of state and district standards developed throughout the Pacific and Northwest Regions, as well as selected standard-setting "models" identified from across the nation (Task 3).
Activity 4.7: Study of the Core Curriculum: Gather data and prepare profiles of different models of "core curriculum" in the region.
Activity 4.13: School Improvement Research Syntheses: Identify, describe and make visible and available for use among practitioners information about exemplary uses of effective schooling practices for school improvements at the state, intermediate district and local school levels.
Activity 4.14: Promising Programs for High Risk Youth: conduct a regional search of alternative education programs that are effective at the middle school and high school level.

Activity 4.18: Study of Effective Vocational Education: Identify through a literature review and contacts with leading R&D institutions applications of effective schooling research to vocational education.

SEDL. A. Developing Educational Partnerships with Parents, Businesses, and Communities:

A.1.1. Identify and describe promising programs/practices of school-business partnerships.

A.2.1. Identify and describe examples of new and promising parent involvement programs and networks.

B. Applying Technology to School Improvement: Identify and describe innovative and promising classroom practices and school programs that use technology.

C. Improving Teacher and Administrator Performance: Identify and synthesize information on teacher and administrator performance systems.

SEIL. Project SEED (Software Evaluation Exchange Development and Dissemination): Indexed annotations on software evaluations made by practitioners trained in procedure and mailed to schools.

A number of observations can be made about this array of promising practices programs and projects:

o This methodology is applied not only to classroom practices but also administrative practices, testing, software, [academic] standards, and professional development programs.

o Some projects look for practices linked to principles in the research literature (e.g., NWREL 4.13 and 4.18)

o One part of the FWL project seeks to enable SDO personnel to make better choices of practices rather than to provide the promising practices.

What makes a practice R&D-based? It can acquire this status either deductively or inductively. In the linear model, a practice is developed on the basis of principles uncovered through research. Much development has been inductive, however. Practices are designed on the basis of professional experience or hunch and progressively refined through evaluation and redesign. Practices that are originally designed deductively may go through a similar process of testing and refinement. Whether a practice deserves to be called "R&D-based" depends on the degree to which it is logically consistent with research principles and/or subjected to a rigorous process of evaluation and redesign.

Research itself can be either deductive or inductive. The effective schools research has been inductive (for the most part). Schools judged to be more effective on given criterion measures were found to exhibit certain characteristics more than did schools judged to be less effective. But there was no evidence that these characteristics caused the schools to be more effective. When schools are changed to exhibit the characteristics of effective schools, this may constitute a deductive test of principles arrived at inductively. It may be that some of the labs' promising practices projects are of this nature.

An important evaluation question for the labs is whether their promising practices activities meet the test of logical consistency with research principles and/or the test of rigorous evaluation. Practices that are selected solely on the basis of practitioner testimonials belong in a different category of "craft-based" practices.

Conclusion

This chapter has analyzed Tasks 2 and 4, which represent from

60 to 78 percent of individual labs' effort. Although Task 2 corresponds to the linkage strategy and Task 4 corresponds to the improvement strategy, we again found that all projects have three strategic dimensions: a linkage strategy, an improvement strategy, and an educational focus. Projects tend to be identified in terms of the strategic dimension that was the point of departure in the planning process.

Further refinements were made in the conceptual framework for all three strategies. Starting with a set of programs dealing with improving administrative leadership, the educational or substantive focus dimension was further refined by observing varieties of ways the problem was defined. Some saw the problem in terms of the need for administrators to understand new bodies of research findings, others in terms of the isolation of administrators, etc. Labs used both theoretic and pragmatic rationales and focused on both curricular knowledge and teaching competencies.

Linkage strategies had previously been analyzed in terms of knowledge base, interorganizational arrangements (national and regional collaborators), and interpretations of the "with and through" strategy. Turning to a set of Task 2 programs, the linkage strategy was elaborated by identifying four types of interorganizational collectivities (partnerships, collaboratives, consortia, and networks) and differentiating those of which the lab was a member from those that were served by the lab as clients. Some tentative findings were: the collaborative (multi-purpose, bi-lateral) was the least common form of interorganizational collectivity, and far more single-purpose arrangements (partnerships and consortia) than multi-purpose (collaboratives and networks) existed.

Improvement strategies previously had been described in terms of the knowledge base employed (research, products, and practices), information services provided, and the KP activities involved (research, evaluation, policy studies, or development). In this chapter a set of Task 4 programs was further studied by subdividing research into applied research, evaluation, policy studies and planning; and coding the primary source of data (primary data, secondary analysis, or interaction documentation). Examples of all approaches were found. Under the heading of "development/ demonstration approach," four categories were recognized: lab development, joint development, promising practices, and demonstration. Programs in each were classified by types of materials (student, teacher, trainer, and administrator materials). There was much less activity involving student materials than the other kinds.

All labs had programs or projects dealing with staff development. Three labs used a trainer of trainers approach combined with the production of training packages. Labs tend to see staff development as internal LEA function and identify the final trainers in the chain to be LEA personnel, especially in large districts. However, they often work with SIO personnel in early stages of the chain. Trainer of trainers programs were found to be weak in making specific provisions for first wave trainers to follow through and train others.

Three other labs combined knowledge production with an information dissemination strategy in seeking to improve staff development. Evidence for the impact of these approaches was sparse.

The other three labs had different approaches to staff development. FWL was largely a joint development effort with the Los Angeles public schools. McREL combined networking with information dissemination, while NWREL used a comprehensive strategy.

It was suggested that staff development was an area in which useful comparative studies or "strategic research" might be conducted.

Finally, the "promising practices" approach to improvement, which involves collecting information about extant programs, was singled out for special analysis. It was noted that it may or may not be an R&D-based strategy, depending on whether the practice is logically consistent with research findings and/or subjected to a rigorous process of evaluation and redesign. The promising practices methodology was applied not only to classroom practices but also to administrative practices, testing, software, standards, and professional development programs.

CHAPTER VI

SUMMARY AND CONCULUSIONS

Nature of the Study

This study has described the nine regional educational laboratories supported by the U. S. Department of Education's Office of Educational Research and Improvement. The labs are operating under five-year contracts for 1986-1990. The study has analyzed lab-produced documents describing lab operation for the first two years of this period, highlighting the status of the program at the end of the second contract year. These were largely management documents (plans, annual reports, self-assessment reports, etc.) rather than program documents.

These aspects of the study, dictated by the request for proposal, impose certain limitations on the analysis. The reports vary greatly in detail and specificity. Consequently it is possible in some instances that a lab may be coded as not exhibiting a certain characteristic or undertaking a given kind of activity when that is not the case. Such information may exist in some document not examined, or if the information was provided it could have been missed in the analysis. This possibility was considerably increased because several lab reports lack continuity. For example, a hierarchical program structure with every program project assigned letters and/or numbers would be set out in a plan but would be abandoned or changed in later documents. Having this report reviewed by both the OERI institutional liaisons and the labs should help overcome such problems.

Some readers may doubt the credibility of lab produced documents. If one discounts occasional passages of self-congratulation, the factual information can be accepted as reasonably valid. There are many examples of candor in discussing problems and how they were dealt with. If OERI did not believe these reports contained useful information it would surely not have commissioned this study.

Conceptual Frameworks

One way that this report has attempted to advance our understanding of lab operations is by borrowing, adapting, or inventing conceptual frameworks for profiling and comparing lab programs and projects. Hopefully they will prove useful in designing further studies of lab strategies.

The RFP governing the lab competition has, of course, been a major point of reference (NIE 1984). In that document the mission of regional educational laboratories was specified by the task structure and a set of "statements" (see Appendix A). All lab programmatic efforts were found to have three strategic dimensions that can be derived from the RFP: an educational focus, an improvement strategy, and a linkage strategy. The major difference is that, whereas the RFP specifies a linkage strategy in Task 2 and an improvement strategy in Task 4, this analysis has demonstrated that programs and projects listed under these tasks exhibit all three strategies. This three-dimensional schema has provided the major framework for the analysis of all lab programmatic activities. Each dimension has, in turn, been further broken down into more detailed classifications of tactics, as follows:

(1) Every (non-management) program and project has a substantive focus. What aspect of education is being addressed? The terminology used for this strategic dimension varies in different chapters, but the most generic and appropriate name is probably educational focus. In the context of needs assessment this dimension was examined as educational need or problem. In the context of state policy analysis it was examined as policy issues and domains. An adaptation of a classification of policy issues or domains used by FWL and derived from one by Mitchell and Encarnation (1983) was found to be reasonably comprehensive and mutually exclusive. In the context of Tasks 2 and 4 educational focus is examined in terms of variations in problem definition, including a distinction between theoretic and pragmatic rationales. Clearly, the specifics of how a problem is defined will have a lot to do with the selection of other strategies and tactics.

A recapitulation of the categories used to describe the educational focus follows. **These and other classifications in this chapter update and consolidate conceptual frameworks used in the analysis. No one analysis in the body of the report used the full set of categories.**

EDUCATIONAL FOCUS
- Problem definition
  - Theoretic rationale
  - Pragmatic rationale
- Educational need/problem/policy/issue domain
  - Buildings and facilities
  - Curriculum and instruction

Organization and governance
Program definition
School finance
School personnel
Student type
Student testing

(2) All programmatic activities have an improvement strategy. Labs are limited to knowledge-based improvement strategies by the RFP (in contrast to strategies based on providing funds, changing regulations, etc). This dimension focuses on the types of knowledge used for educational improvement and how it is obtained and processed. Some facets of knowledge-based improvement strategies examined include knowledge bases used, information services provided, and types of KPU, including sub-types of research approach and primary sources of data.

A recapitulation of the categories used to describe the improvement strategy follows:

IMPROVEMENT STRATEGY
Knowledge base
  Research findings, by field (ad hoc)
    Effective schools
    etc.
  Products
    Extant
    To be developed
  Practices
    Extant
    To be compiled
Information services
  Database development
  Reports based on databases
Knowledge production to be undertaken
  Approach
    Research
    Evaluation
    Policy studies
    Planning
    Development

Primary type of data
    Primary data
    Secondary analysis
    Interaction documentation

(3) All programmatic activities have a linkage strategy. Labs are sociologically marginal organizations operating in a loosely coupled configuration of educational units. Since education lacks system characteristics, there is no assurance that new knowledge and practices will flow through it efficiently. Labs are in the position of having to continually negotiate their role in the organizational infrastructure. Consequently all programs and projects must specify a strategy and tactics for linking to other educational organizations. The RFP called for an indirect "with and through" strategy as the dominant mode of operation, i.e., labs would work primarily with and through other service improvement organizations (SIOs) rather than directly with service delivery organizations (SDOs). In this context, the conceptual framework was further elaborated to specify knowledge bases, interorganizational arrangements, and communication modes.

A recapitulation of the categories used to describe the linkage strategy follows:

LINKAGE STRATEGY
Knowledge base
    Research findings, by field (ad hoc)
        GDPA study (Louis et al 1984)
        DESSI study (Crandall and Loucks 1983)
        etc.
    Ordinary knowledge
    Products
        Extant
        To be developed

  - Practices
    - Extant
    - To be developed
- Interorganizational arrangements
  - Collaborators
    - National collaborators
      - Other labs
      - University centers
      - National associations
      - Other
    - Regional collaborators
      - KPOs
      - SIOs
      - SDOs
  - Clients
    - Primary
      - Chiefs
      - Other SEA
      - State government
      - State-level associations
      - IHEs
      - ISAs
      - SDOs
      - Cross section
      - Other
    - Range
      - Narrow
      - Medium
      - Broad
    - Type of client
      - Organizations
      - Individuals
      - Networks
      - Mixed
  - Interpretation of "with and through" strategy
    - SIOs are clients
    - SIOs are collaborators/sponsors, SDOs are clients
    - SDOs are collaborators and/or clients
  - Type of interorganization collectivity (IC)
    - Lab is member of IC
      - Partnership
      - Consortium
      - Collaborative
      - Network
    - IC is client of lab
      - Partnership
      - Consortium
      - Collaborative
      - Network

- Communication mode
  - Approach
    - Regional
    - State-by-state
  - Type
    - Information services
      - Search and retrieval
      - Publications
      - Electronic services
      - Presentation meetings
      - Briefings
    - Technical assistance
      - Telephone, mail
      - In-person consultations
    - Professional development
      - Training workshops
        - Training of trainers
        - Other
      - Participation in inservice programs

The conceptual frameworks presented above deal with lab program activities. Other frameworks apply to organization, governance, and planning activities, but only those for planning activities will be reviewed here.

The planning process implicit in the RFP requirements and exhibited by the labs was a version of strategic planning. Its major components are needs assessment, regional capacity assessment, self-assessment, and laboratory plans.

Needs assessment might be structured in terms of the classification of policy domains presented in the educational focus framework. Needs assessment has tended to be pragmatic in orientation. Consideration might given to structuring needs assessment along theoretical dimensions. For example, how are regional schools distributed in terms of characteristics of effective schools? Of course labs are dependent on the availability of good indicator data for this kind of information. Several labs did collect needs survey data using the Grunig communication theory, which seemed to be useful in determing the degree of concern with specific issues. A number of meanings of "need" were noted, and the concept should be clarified for further needs assessment efforts. Further, needs can be specified at different levels of generality. A level midway between the generic functions of education and the level of technical design was recommended.

The weakness of regional capacity assessment was noted, together with the failure to use the methodology developed in the ARROE Study (Frankel et al 1979; Lehming 1982). That study collected information on educational organizations performing research and research-related activities by type and including purpose, areas of primary educational R&D work, size of staff, specialities of professional staff, amount and source of funds with breakdowns by educational level and R&D function, and types of publications and dissemination activities. Adaptations of this framework to make it commensurate with other components of the strategic planning model would be necessary.

A review of the questions addressed in self-assessment activities revealed two types: criterion and purpose questions. Criterion questions could be grouped under the three strategic dimensions discussed above in addition to a fourth for organization and management.

CRITERION EVALUATION QUESTIONS
Educational focus
    Relevance

- Improvement Strategy
  - Quality
  - Utility
  - Impact/effect
  - Client satisfaction
- Linkage strategy
  - Interorganizational arrangements
  - Reaching audience
  - Lab visibility
  - Indirect strategy
- Organization and management
  - Efficiency
  - Capacity for self-assessment

PURPOSE EVALUATION QUESTIONS

- Improve program
- Improve organization/management
- Improve self-assessment
- Development staff
- Achieve contract compliance
- Increase knowledge

At a more general level, a variety of models or images were employed in self-evaluations.

EVALUATION MODEL OR IMAGE

- Systems/CIPP
- Quality control
- Strategic planning
- Goal free evaluation
- Evaluator as educator
- Institutional renewal

Lab plans are expected to flow from these needs-sensing, capacity assessment, and self-assessment activities. One would therefore expect the plans to use the conceptual frameworks related to each of these processes. In addition, there is the issue of how lab activities are structured into work units and organized for supervision and management.

The present study found the task structure mandated by the RFP useful in providing more detail on the mission of the labs but tended to be confusing for structuring work. Some kind of hierarchical structuring of programs, projects, and activities was used by virtually every lab and seems desirable. Problems arose when names and numbers of work units were changed and it became difficult to trace a work unit from one report to another (e.g., from the full service plan to annual reports, to self-assessment reports, etc.).

Findings

Governance and Organization

The nine regions differed widely in their demographic, educational, and economic characteristics. However, there is probably as much variation within regions as between them, and regional homogeneity is not the basis for the regional organization of laboratories. Rather, logistic considerations such as size of area, travel distances, and number of organizations with which to establish relations dictate a sub-national approach to laboratory services. Whether nine is the right number or the present configuration of states into regions is the right one is an open question. Nevertheless, given the difficulty of a laboratory establishing itself or changing constituencies, changes should be considered only in response to some compelling demand. It is difficult to discern the rationale for the relationship between budget levels and regional requirements. It may be desirable to find a new formula for the next round of competitions.

Labs have met federal specifications for establishing independent governing boards and seem well connected to regional constituencies both through their boards and adjunct structures such as advisory committees. This is especially important given the loosely coupled nature of the educational configuration.

In terms of organization, all labs have some combination of program and service units. . Most employ some form of matrix management. If they did not have to report to OERI by task, both organizational structures and reporting requirements might be simplified. While a small degree of decentralization, as practiced by FWL and McREL, for example, seems to work reasonably well, the more radical form tried initially by NE/I had to be abandoned. Labs would probably have to be larger by several orders of magnitude before radical decentralization was feasible (i.e. large enough to have a "critical mass" at every location).

Planning

Some of the planning findings have been covered above in the section of planning conceptual frameworks. But a few additional comments are in order.

Labs do a reasonably good job of needs assessment but a poor job of regional capacity assessment. Given the requirement that labs stress the "with and through" strategy it might be helpful if labs viewed regional capacity assessment as measuring the needs of regional service improvement organizations. Labs also need to make explicit the ways in which components of the strategic planning model are analyzed in relations to each other. What is the logic and analysis whereby needs are compared with capacity to yield planning priorities? Alternatively, if regional capacity assessment is not necessary to good planning it should be dropped from the model.

Self-assessment as presently conducted is trying to serve too many purposes, and the process needs to be separated from OERI's program evaluation efforts. In addition, product testing in the development process or selection of promising practices should be outside the bounds of self-assessment. Many documentation activities (e.g., phone logs) may be useful for internal management but are not particularly useful for reporting to OERI. Most contract compliance issues should be relegated to quarterly and annual reports and limited to a management by exception procedure.

Most important, new emphasis needs to be placed on an RFP requirement that seems to have been largely overlooked. "...the laboratory is expected to contribute to knowledge about effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working" (NIE 1984, p 21). The AEL examination of the study group strategy and tracer studies supported by AEL and SEIL appear to be examples of what is needed.

This goal is give explicit recognition in the Task 5 Evaluation Collaboration. The **Summary Report of the Task 5 Evaluation Collaboration** (1987) lists as one of four objectives:

> To provide a broadened perspective on laboratory operations by synthesizing evaluation information on the effectiveness of selected major laboratory strategies

However, the initial activity identified to implement this objective seemed rather limited. It was to compile a descriptive synthesis of how Tasks 2 and 3 were being implemented at each laboratory. Only four labs had provided the necessary information by the end of 1987.

Work with State Level Decisionmakers

At least one lab viewed the task of working with state-level decisionmakers on school improvement issues risky because maintaining a neutral posture on controversial policy issues was difficult, but most labs did not even mention such difficulty. In most regions other organizations seem to welcome the idea of a lab's convening diverse groups to discuss and analyze issues of common interest and otherwise play a catalytic role.

Labs differed in whether they focused their Task 3 effort largely on the CSSOs or SEAs more generally, or worked with a broader cross section including the governors' offices, legislative committees, professional associations and interest groups. They also differed considerably in the improvement role assumed. Some functioned primarily as convener of state and regional policy forums and conferences, some as resources for policy analysis, some as monitor of educational reform efforts, etc. This is an area in which some progress was made in Task 5 in planning some activities for year three and beyond as collaborative lab efforts. Their support of William Dunn at the University of Pittsburgh in elaborating his ADD model and preparing a handbook of policy analysis methods should help considerably in developing a common understanding of the policy analysis function.

Most labs directed their efforts primarily at the early stages of the policy process (agenda and formulation). RBS was a notable exception, focusing primarily on the implementation and evaluation stages.

One unresolved issue needs to be addressed. It would seem essential for each lab to have information on the educational reform legislation and programs in each state and to know just which states are engaged in different kinds of initiatives. This is logical aspect of environment scanning or needs assessment. In addition, this information would be useful to many national organizations, and organizations participating in the State Education Policy Consortium expressed such a need. Some labs collect these kinds of data, but whether regional laboratories are the best mechanism for developing this kind of national database is an open question. Data comparable on a national basis are needed, and it might be more practical for OERI or the Center for Education Statistics to collect the data in some other way.

Tasks 2 and 4

Although Task 2 corresponds to the linkage strategy and Task 4 corresponds to the improvement strategy, all programs and projects classified into and reported to OERI under these rubrics were found to have all three strategic dimensions (educational focus, linkage strategy, and improvement strategy). In analyzing this set of activities it was possible to elaborate various parts of the conceptual framework, as reported above.

In examining a set of programs to improve administrative practices, variations in defining the problem were observed:

- Local administrators have a great responsibility for implementing changes resulting from the reform movement.

- There are important bodies of research on school improvement, instructional leadership, etc., that administrators need to become familiar with.

- Schools and their leaders need to develop a culture of inquiry orienting them toward using knowledge-based resources in their attempts to improve schools.

- School administrators are physically isolated, and new structures are needed to put them in touch with their peers and help them access knowledge-based resources for school improvement.

- It is a mistake to focus exclusively on the principal's role; leadership is provided by a number of roles at school and central office levels.

Two main approaches to improvement were found. One synthesizes relevant research findings and develops them into training packages. The other collects, reviews, and packages promising administrative practices. The most common vehicle for linkage was the principalship academy. These academies are sponsored by different kinds of service improvement organizations, and labs generally worked "with and through" these organizations.

The further study of linkage strategies was placed in the context of interorganizational theory (Negandhi 1975), and four types of interoganizational collectivities (IC) were formulated, based on whether the collectivity was bilateral or multilateral and whether it had a single purpose of multiple purposes. These were further differentiated in terms of whether the lab was a member of the IC or provided services to a client IC. While it was not possible to make a comprehensive classification of Task 2 and Task 4 programs, the analysis produced several suggestive findings worthy of further study. The collaborative (multi-purpose, bilateral) was the least common form of IC. More single-purpose arrangements (partnerships and consortia) than multi-purpose (collaboratives and networks) were found.

A more detailed examination of research approaches found examples of applied research, evaluation, policy studies, and development. In each of these, examples were found using each source of data (primary data, secondary analysis, and interaction documentation).

A group of programs on staff development was examined to refine our understanding of the improvement tactics used. Three labs combined a training of trainers approach with development of related training packages. These programs tended to be deficient in terms of making adequate arrangements for those trained to provide second tier training.

Three other labs combined knowledge production activities such as publications and information packages with information dissemination activities. Little evidence of impact from these strategies was presented.

Another three labs had unique approaches to staff development. FWL worked with the Professional Development Center of the Los Angeles Public Schools to develop three sets of training materials for mentor teachers. McREL combined network creation and support with information dissemination. NWREL used a comprehensive strategy, using just about every improvement and linkage tactic.

Finally, a separate analysis was made of the "promising practices" approach to improvement. This tactic consists of collecting descriptions of programs and practices already in existence and providing access to this information to others. This methodology was applied not only to classroom practices but also to administrative practices, testing, software, academic standards, and professional development programs. Unfortunately, the documentation available for this analysis did not provide much information on methods of identifying promising practices, the criteria used for selecting them, or evidence of effectiveness. It was noted that this approach may or may not be an R&D-based approach to improvement, depending on whether the practice is logically consistent with research findings or subjected to a rigorous process of evaluation and redesign.

Final Comments

At a number of points the tension between the rational systems perspective and the configurational perspective was noted. A similar tension exists between requirements for proactive planning and need for accountability under government contracts on the one hand and need to be flexible and responsive to shifting demands from constituents on the other. These tensions cannot be eliminated, but they can be ameliorated if all actors in the drama get a better understanding of the limits of planning and accountability. Lab programs are high-risk endeavors that can be undercut by unpredictable changes in their environment such as changes in SEA personnel. The important thing is to have consensus on the broad mission and goals of the labs and recognition that changes in specific activities in response to unforeseen circumstances are all right if they are consistent with broader purposes. The RFP under which these laboratories were selected and funded did an excellent job of clarifying the mission of the program and provides a good basis for program management. It does not appear at this point that any radical changes would be needed for the next round of competitions.

Several minor adjustments have been suggested along the way. One is to devise a new task structure that does not define any one of our three strategic dimensions as a separate task. On the other hand, it might be useful to ask that the three-dimensional schema be used in describing each programmatic effort. No program description would be complete unless it described its educational focus, improvement strategy, and linkage strategy.

Another suggestion was to develop more specific guidelines for annual reports, quarterly reports, self-assessment reports and needs sensing reports. There is some overlap among these reports, and the separate purpose of each needs sorting out. It would also be desirable to define a program structure of programs, projects, and activities that would be consistently followed from one report to another and over time and that would permit development of a management information system for the total laboratory program.

The regional educational laboratory program has been controversial for over 20 years. It never lacks for critics who ask for hard evidence of massive impacts. Alas, few, if any, government programs can meet that test. Perhaps an analogy exists between the laboratory program specifically and the educational system generally and the bumble bee. We are told that according to all the principles of aerodynamics the bumble bee cannot fly - but it does. Sometimes it seems as if we are told that the educational system is a total failure: that children don't learn, teachers don't teach, and new knowledge has no impact on the improvement of education. Yet our common sense tells us "it ain't necessarily so" - that somehow it works in most places and at most times. Our task is to find out more about how and why it works when it does so we can improve education in all places for all children. The laboratories are making steady progress toward doing just that.

APPENDIX A

EXCERPTS FROM REQUEST FOR PROPOSAL
REGIONAL EDUCATIONAL LABORATORY INSTITUTIONAL OPERATIONS

Task Structure

Task 1: Develop effective governance, management, planning and evaluation systems for the laboratory.

Subtask 1.1: Design and implement effective governance, staffing, and management systems for the laboratory.

a. Establish or reshape the governing board and other advisory structures.

b. Develop or improve management systems and procedures for the laboratory.

c. Recruit and assign staff and develop or refine policies a procedures for their effective utilization.

Subtask 1.2: Assess regional needs, capabilities, and opportunities and establish priorities for laboratory activity.

Subtask 1.3: Prepare plans for future services.

Subtask 1.4: Conduct self-evaluation of laboratory projects and services.

Task 2: Work with and through existing organizations to improve schools and classrooms.

Task 3: Work with State-level decisionmakers on school improvement issues.

Task 4: Work to create research and development based resources for school improvement.

Task 5: Work in collaboration with centers and with other laboratories on regional and national education problems

Statements

1. Laboratories focus on school and classroom improvement.
2. Laboratories feature dissemination and assistance strategies.

3. Laboratories engage in applied research and development th support improvement.
4. Laboratories serve designated regions.
5. Laboratories have independent governing boards.
6. Laboratories are part of a nationwide system.

APPENDIX B

TASK STRUCTURE OF LABORATORY PROGRAMS FOCUSED ON IMPROVING ADMINISTRATIVE LEADERSHIP

The following task structures are taken from proposals, which generally contain the most complete statement of rationale and task structure. In many cases activities were subsequently modified or deleted. Numbering is that used by each lab:

o AEL: School Administration and Governance Program.
  1. Provide R&D-based information to school administrators.
  2. Establish and operate State study groups.
  3. Provide technical assistance to school administrators through in-State workshops, conferences, and SES sites.
  4. Plan and collaborate with other lab programs.

o FWL: Professional Preparation and Development
  3.4 Support for school level leadership
  3.4.1. Refine and demonstrate Peer Assisted Leadership (PAL).
  3.4.2. Develop and test a trainer of trainers capability.
  3.4.3. Examine special problems in school leadership (one topic per year).
  3.4.4. Develop and implement summer leadership institutes for practicing administrators and teacher leaders.
  3.4.5. Promote districts' options for school improvement.

o NE/I: Leadership for School Improvement
  1.1. Support materials for school improvement leadership.
  1.2. The School Improvement Leadership Network
  1.3. Research on leadership for school improvement.

o NWREL: Rural Networking for Leadership
  o Identify up to three regional agencies that are interested and have good potential as agencies.
  o Develop up to three models for network and collaboration development among small...schools.
  o Develop processes and materials for training personnel from cooperating regional agencies and schools.

- o Identify cooperating schools and establish up to three networks and test each of the three models in a network.
- o Evaluate the effectiveness of each of three models in terms of improving instruction in the schools and prepare the successful model(s) for dissemination.
- o Disseminate and support the implementation of the successful model(s).

o RBS: Organizational Effectiveness

1. Management development
2. Secondary school improvement
3. Labor-management cooperation

o SEDL: Improving Teacher and Administrator Performance

C.1. Investigating teacher and administrator performance-assessment systems associated with implementing rewards, incentives, or career- development.

C.2. Identifying and describing teacher and administrator performance-improvement programs that couple performance assessment with inservice education/staff development.

o SEIL: C. Improving Leadership Skills of School Principals

- o Provide information to practitioners on national and regional resources; national, State, and local initiatives and current literature; and form a regional resource network.
- o Design and develop products and staff development activities based upon current Council efforts to provide immediate application to school principal training, making use of best adult learning theories.
- o Collaborate with existing resources to secure additional staff development materials.
- o Develop and implement plans for service delivery to practitioners through principalship academies, with assistance of State advisory committees.
- o Provide technical assistance to intermediate service organizations (principal academies)...
- o Plan, implement and evaluate activities for particular application and effect upon traditionally underserved populations, and revise accordingly.
- o Coordinate with other lab projects to maximize effect.

- Coordinate with other labs and centers...
- Identify research needs and recommend a school principals research agenda.
- Evaluate and revise plans to provide direction for third, fourth, and fifth years.

APPENDIX C

GLOSSARY OF ACRONYMNS AND ABBREVIATIONS

ADD	Analysis, development, and dissemination [model: Dunn]
Adm	Administrator
AEL	Appalachian Educational Laboratory
CIPP	Context, input, program and product [evaluation model]
CCSSO	Council of Chief State School Officers
CES	Center for Education Statistics
CPRE	Center for Policy Research in Education [Rutgers U.]
CSSO	Chief state school officer
Demo	Demonstration
DESSI	Dissemination Efforts Supporting School Improvement (Crandall and Loucks 1983)
Dev	Development
DM	Decisionmaker
ECS	Education Commission of the States
ERIC	Educational Resources Information Center
Eval	Evaluation
FWL	Far West Laboratory
GDPA	General purpose dissemination assistance (Louis et al 1984)
IC	Interorganizational collectivity
IEL	Institute for Educational Leadership
IHE	Institution of higher education
IOA	Interorganizational arrangement
ISA	Intermediate service agency
KP	Knowledge production

KPO	Knowledge production organization
KPU	Knowledge production and utilization
KU	Knowledge utilization
LEA	Local education agency
McREL	Mid Central Regional Educational Laboratory
NCREL	North Central Educational Laboratory
NE/I	The Regional Laboratory for Educational Improvement of the Northeast and Islands
NGA	National Governors' Association
NIE	National Institute of Education
NWREL	Northwest Regional Educational Laboratory
OE	Office of Education
OERI	Office of Educational Research and Improvement
RBS	Research for Better Schools
R&D	Research and development
RDD&E	Research, development, demonstration, and evaluation
RDIS	Research and Development Interpretation Service
Res	Research
RS	Regional Services [Program]
RX	Regional Exchange
SA	Self-assessment
SEA	State education agency
SEDL	Southwest Educational Development Laboratory
SEP	State Education Policy [Program]
SEIL	Southeastern Educational Improvement Laboratory
SIO	Service improvement organization
SDO	Service delivery organization

Tea	Teacher
TT	Training of trainers

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